{In Archive} hydraulic fracturing in the news

Beth Wagner to: Brian Graves, Ken-E Johnson, Michael Bechdol, Michael Overbay, Mike Frazier, Ray Leissner, Susie McKenzie, Jessica Duggan, David Parker, Philip Turner, Rob — 05/14/2012 12:35 PM

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Federal Rules For Fracking _ May 14, 2012 Issue - Vol. 90 Issue 20 _ Chemical + Engineering News.pdf

77 FR 27691, 05_11_2012, 43 CFR Part 3160, Proposed Rule DOI.pdf

Two ALI-ABA Video Webcasts on Shale Drilling and Hydraulic Fracturing
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California Lawmakers Order Fracking Regulations Through Budget Plan
Posted: May 11, 2012 Follow Clean Energy Report

California lawmakers this week approved a budget plan requiring state regulators to promulgate first-time specific rules for hydraulic fracturing, or “fracking,” operations in the state by the end of 2013. The lawmakers argue development of fracking rules is critical to ensure water supplies and air quality are protected from the process, which is used most often in California to extract oil from wells. This is in contrast to more controversial fracking operations to extract natural gas from shale and other underground formations that are occurring in other parts of the country.

It remains unclear whether Gov. Jerry Brown (D) will support the lawmakers' proposed specific requirements for fracking operations, given that he recently directed regulators to promulgate fracking rules.

Both the Senate and Assembly budget subcommittees with oversight of environmental agencies on May 9 approved “budget bill language” that directs the Division of Oil, Gas & Geothermal Resources (DOGGR) to adopt fracking regulations by Jan. 1, 2014. Specifically, the Assembly panel action requires the new rules to cover “timely disclosure of fracking locations, dates, and chemicals to a new or existing fracking database available for the public; the operations and maintenance of wells, including well location, fracture depth, and a searchable database of well casing failures; and, the tracking of injection and disposal of hydraulic fracturing fluids and the associated produced water or flowback,” according to an Assembly subcommittee staff report.

The subcommittee's directive for fracking regulations comes in the context of Brown's proposed fiscal year 2012-13 budget, in which he is seeking legislative approval for 18 permanent positions and $2.5 million for DOGGR to “enhance onshore and offshore regulatory programs by improving its construction site review, environmental compliance, and underground injection control (UIC) programs,” according to the staff report.

Lawmakers on the Assembly panel voted to approve funding for the 18 requested positions, despite the panel staff's recommendation to reject six associate oil and gas engineer positions. The subcommittee staff noted that the state Legislative Analyst's Office (LAO) concluded that DOGGR has not clearly demonstrated the need for the additional resources. For example, questions arise about the need for new positions given that 13 positions out of the 35 positions added in the past two years remain vacant, LAO says.

The lone vote against the funding request was cast by Assemblyman Jared Huffman (D), who raised concerns that the additional DOGGR staff would be working to expedite permitting of drilling projects that may include fracking before the division has completed its fracking regulations.

The Senate budget subcommittee on May 9 adopted a nearly identical plan as the Assembly subcommittee. However, within the fracking regulations portion of the plan, the Senate included a requirement that companies report "the location of any known seismic faults within five miles of the well." In addition, the panel approved another provision proposed during the hearing by chairman Sen. Joe Simitian (D), which requires companies to report "the content and ingredient of substances used in hydraulic fracturing and their impact on public health and safety."

An environmentalist praised the fracking regulatory proposal by the budget panels, calling them "basic guidelines" that are necessary. While some environmental groups are supporting separate legislation -- AB 591 by Assemblyman Bob Wieckowski (D) -- that lays out more detailed requirements for companies to report fracking operation data to regulators, the source says the budget panels' proposals are important in the event that AB 591 is defeated. The source says it is unclear whether Brown will agree to the legislature's plan to regulate fracking.

An oil industry source pointed out that DOGGR has already announced plans to hold a series of workshops this summer on developing fracking regulations, as ordered by Brown. "We will have to see what they come up with in terms of specific regulations, but our members understand this is something the state is going to be addressing," the source says. "And if it helps people feel comfortable about a technology that's been proved to be safe, then that's a good thing."

Mark Nechodom, the director of the Department of Conservation, which houses DOGGR, told lawmakers during both subcommittee hearings this week that seven public meetings to develop the new fracking regulations have been scheduled around the state, with the first slated for May 16 in Bakersfield. He said that the department hopes to propose the regulations in the fall and finalize them by the end of the year.

However, several sources agreed that this timeline is unlikely to be met and that the regulations are not likely to be completed until well into 2013.

What remains unclear are the detailed requirements that companies will face under the new DOGGR regulations. Nechodom said during the Senate budget subcommittee hearing that many critical issues -- such as whether all individual chemicals must be reported -- are likely to be debated in the coming months as the department begins to develop the rules.

He said Simitian's additional requirement added to the budget bill language "is within the range of the larger discussion of many states" that are currently developing, already have developed or are amending fracking regulations, he said. "So the disclosure requirement is usually the rubric that very often contains something about content . . . and there will be discussion on intellectual property rights and trade secrets. We expect to hear a great deal about that in the workshops and take it into consideration in regulatory development." Nechodom added that fracking fluid "content" will be debated in terms of percentages and whether reporting these figures will disclose trade secrets.

Pa. commission sets rules for impact fee

Ellen M. Gilmer, E&E reporter
Energywire Published: Monday, May 14, 2012

A Pennsylvania commission has finalized procedures for collecting and doling out funds from a new

drilling impact fee on unconventional wells.

The fee was established earlier this year with the passage of the expansive Act 13, which amends the state's 1984 oil and gas law to regulate hydraulic fracturing and horizontal drilling in Pennsylvania, as industry activity proliferates in the region.

The five-member Public Utility Commission voted unanimously last week on well reporting requirements for township officials and oil and gas companies. The commission will begin distributing money collected from the fees to local governments this fall.

Townships can then spend those funds on improvements related to drilling, like roads, public safety and environmental protection. It's unclear how strictly the state will enforce that spending requirement. PUC commissioners have said that oversight won't be strenuous but that discrepancies will be referred to state officials, according to news outlet StateImpact Pennsylvania.

Comments on the commission's order will be accepted until the end of May.

The PUC will wait to address another section of Act 13, this one establishing that state authority trumps local control over oil and gas operations. That section is currently mired in a legal challenge from seven municipalities (EnergyWire, April 2).

Study of health effects in Marcellus Shale planned

Gayathri Vaidyanathan, E&E reporter Energywire Published: Monday, May 14, 2012

A hospital system on the Marcellus Shale in Pennsylvania has begun a project to assess the health effects of hydraulic fracturing.

Geisinger Health System, widely recognized as one of the nation's most innovative hospital networks, will be mining through its trove of electronic medical records on patients that it began collecting in 2005 for the initiative.

Using the information, researchers will draw conclusions on whether certain health problems could be linked to shale gas extraction, said David Carey, director of Geisinger's Weis Center for Research.

The research program is in the planning stage, with funding from a foundation, and is looking to partner with private foundations, the government and possibly industry for the actual study.

"We'd like to collect the data and do the research to get scientifically rigorous answers to the question, which is, 'Is it harming people or not?' And if it's not, then that's the outcome. We are not out to get anybody; it's not a gotcha study," Carey said.

Anecdotes of health effects in residents living near shale gas drilling sites have abounded in recent years, and health clinics have opened in Pennsylvania to treat people who say they suffer from the effects of shale gas extraction. Emotions often run high in public meetings, with some residents charging industry with harming their health by "fracking," the catch-all term applied to shale gas extraction.

It's unclear whether there's any truth in these accusations. Symptoms of health effects may be generic, and it can be difficult to determine whether there has been exposure and, if so, what the routes of exposure may have been. The illnesses may also have a psychological component.

To establish clear links, researchers typically conduct epidemiological investigations with data from large numbers of patients. And they may trace the health status of a community before and after the advent of a particular industry, such as shale gas. But these studies have not been carried out so far because of a lack of data.

The Institute of Medicine recognized this data deficit last week as it invited medical professionals and federal scientists from U.S. EPA, the Occupational Safety and Health Administration, and the U.S.

Geological Survey to a roundtable last week to discuss how to set up a system to assess health effects.

Meanwhile, Geisinger has stepped up.

The health network is the primary provider in northeastern Pennsylvania, where Marcellus drilling is happening, as well as in north-central Pennsylvania, where there is relatively little oil and gas development. It has clinics and tertiary care hospitals, and it began maintaining electronic health records on patients in 2005. This means the hospital has detailed, accessible information on patient care from before the shale gas industry began expanding in northeastern Pennsylvania in 2008.

Asthma
Geisinger may look into asthma, a relatively easy illness to study because it is exacerbated in patients when air quality worsens. The hypothesis would be that oil and gas drilling leads to bad air quality, which would affect people's health.

"There's some data that there may be release of hydrocarbons from some of this activity -- either methane, volatile organic compounds, other things -- into the air that might have negative impact on the quality of the air," Carey said. "So you can make a plausible hypothesis that if that is the case, then one of the effects could be to exacerbate symptoms in people with pre-existing diseases like asthma."

The hospital network maintains data on prescriptions of asthma medication as well as doctor visits and records of respiratory tests. It would aim to do a generic study to see whether an increase in shale gas drilling could correlate with asthma and emergency room visits. It would compare this study with a similar one done in counties without gas drilling.

If the study indicates a potential rise in asthma in only the counties with drilling, the researchers may conduct more detailed studies on health care end points such as cardiovascular disease and cancer.

Geisinger also maintains a detailed genomic database called MyCode, collecting blood and other samples from consenting patients for genetic research. Researchers may mine this database for studies designed to look into the effects of drilling on the molecular level. These may include genetic markers that indicate acute stress in the body, which may or may not coincide with shale gas drilling.

Exposures
The Southwest Pennsylvania Environmental Health Project in Washington County was created earlier this year in response to a need felt by residents to get answers about their perceived shale-gas-related health problems, said John Suggs, managing director of the project, which is unrelated to Geisinger and caters to patients who say they have been affected by shale gas extraction.

Chemicals from fracking are often blamed for the witnessed symptoms.

Patients have come from as far away as Ohio for advice, Suggs said.

"We see a lot of rashes, nosebleeds, headaches, fatigues, we see metal tasting in people's mouths -- a whole different range in which people are manifested, and everybody is different," he said.

The center does not try to pinpoint the cause of their symptoms or say that there has been exposure to any problematic chemicals. Rather, it tries to advise patients about possible routes of exposure, which may include air, water and food, that they can choose to avoid.

The project also maintains a registry of patients that it may share with epidemiologists looking to carry out detailed research, Suggs said.

Interest groups inch toward acceptance on exports
Jenny Mandel, E&E reporter Energywire Published: Monday, May 14, 2012

As domestic gas producers struggle with prices low enough to stall drilling, Washington's lobbying groups

are coalescing around common messaging that grudgingly acknowledges a place for export of the commodity.

For years, manufacturing groups have balked at policy proposals that would increase demand for natural gas, which is important both as a fuel for factories and as a raw material for chemicals used to make plastics, fertilizers and a host of other products.

Most recently, the American Chemistry Council, the National Petrochemical and Refiners Association and others have fought the "NAT GAS Act," a measure that would promote natural gas vehicles, arguing that such support would drive up natural gas prices and hurt the chemicals industry, with follow-on damage in other manufacturing sectors (E&ENews PM, July 13, 2011).

The prospect of liquefied natural gas exports as a major driver of demand is relatively new, a byproduct of the shale gas boom, with the Energy Information Administration (EIA), the Energy Department's statistical arm, predicting earlier this year that the country would become a net exporter in 2021.

That has put manufacturing interests in the sometimes-uncomfortable position of assessing where they stand on an issue that on the one hand could lead to higher input prices, but on the other rests on a basic principle of free markets that they rely on: the open exchange of goods.

Currently, there is only one U.S. LNG export facility, a small terminal in Alaska that served the Japanese market for more than 40 years before being mothballed last year. A slew of newer facilities have construction and export applications pending with the Energy Department and Federal Energy Regulatory Commission, while one, the Sabine Pass Liquefaction Project in Louisiana, has cleared those hurdles and is now focused on financing (EnergyWire, May 8).

The global gas market is effectively divided into three parts: North America, Europe and Asia. Transportation constraints among those markets -- especially LNG import and export bottlenecks -- preserve that division and contribute to dramatically different price points among them. In the United States, gas prices are near $2 per million cubic feet, while European rates are about $10 per million cubic feet and Asian prices have been above $17 per million cubic feet in recent months.

Among manufacturing-focused groups, some have come to cautiously accept the prospect of expanded LNG exports, acknowledging that although $2 gas is great for their constituents, the industry cannot sustain itself at that level and needs access to new markets.

"Abundant, affordable domestic energy supplies are critical to the domestic petrochemical industry, and the bright picture for shale gas is driving a renaissance for chemistry and the broader manufacturing sector," Jennifer Scott, a spokeswoman for the American Chemistry Council, said in a statement underlining the benefits of domestic gas use.

But she said the group does not oppose LNG exports or believe that regulatory barriers -- like delays in granting Energy Department export permits -- should be thrown up. "We put our confidence in the free market to determine natural gas supply and demand. We would oppose legislation that attempts to restrict exports of natural gas," Scott said.

The National Association of Manufacturers has a similarly two-tiered position on LNG exports. "An adequate supply of natural gas is needed to meet the growing demand of the U.S. manufacturing sector in a recovering economy. ... [We] believe abundant domestic natural gas resources can fuel a renaissance in U.S. manufacturing," the group says. Still, it maintains, "the NAM fundamentally supports free trade and open markets. We support a natural gas policy process that is open, transparent and objective."

'Natural gas is different'

The Industrial Energy Consumers of America is one group that has not embraced LNG exports. The organization intervened in the Sabine Pass Project's DOE application for an export permit, arguing that it was not in the public interest to grant permission.

"Exporting a significant portion of what the U.S. consumes each year is not in the interests of the public or manufacturing," the group said in its filing. "At this time, it is not in the interest of the public to 'promote liberalization of the global natural gas market by fostering increased liquidity and trade at prices established by market forces'" as proposed in the Sabine Pass application, it added. "Manufacturing, like most home owners and farmers, do not have a substitute for natural gas and we rely upon common sense energy policy to provide the affordable and reliable natural gas for all of our needs."

Paul Cicio, the organization's president, said the group no longer takes the position of opposing LNG exports. But he said domestic consumption "should be emphasized."

"There's greater economic benefit of manufacturing, producing value-added products that then create exports, than exports of natural gas," Cicio said, arguing that national interests and manufacturers' interests align around exporting higher-value goods.

"We can't let Congress off the hook" when it comes to promulgating sound energy and economic policies to optimize growth, Cicio said, describing low domestic gas prices as a "colossal advantage" over competitors in Asia and elsewhere.

But in arguing that LNG should be treated differently from other commodities, Cicio drew on its importance for home heating as well as manufacturing. "Natural gas is different than other traded products," he said, because every man, woman and child depends on it.

Cicio said his group's primary concern lies with linking U.S. gas prices with those paid overseas. "We do not want domestic natural gas priced such that if there's higher demand by China, Japan and South Korea, that it raises the price of natural gas and electricity in the United States," he said. "We do not want domestic natural gas prices to be determined by international demand for LNG."

Still, Cicio said he was not against free trade or opposed to exports.

'Why would you stop just one product from being exported?'
On the other side of the fence is the American Petroleum Institute.

"We're all in favor" of exports, said API senior economic adviser Rayola Dougher. "We're very much in favor of domestic production and exports, when we can export natural gas. ... It supports a lot of jobs -- engineering, manufacturing, production, construction."

Dougher stressed that significant natural gas exports would improve the country's balance of payments and provide enough demand to stimulate new production.

"If you don't do that, your model of development is really like North Korea. I mean, why would you stop just one product from being exported? Why would you stop cars, or any other product, from being exported?" she asked.

Studies suggest that if LNG exports go forward, the impacts on prices are likely to be modest.

A January EIA study looked at four cases, with either 9 billion cubic feet per day or 18 billion cubic feet per day of exports ramping up over either four or 12 years, with a range of assumptions for global shale gas production and economic growth.

That study, which had a long list of significant caveats in how the model addresses global markets and trade frictions, found that 60 to 70 percent of exports would be accounted for from new gas production, while the rest would come from decreased consumption. Of that decrease, EIA said, most would come from the power sector, with a shift toward coal-fired generation.

On pricing, EIA found that a scenario with a large and fast increase in exports led to an initial price spike followed by subsequent moderation, while other scenarios saw more price increase toward the end of the export ramp-up period. Regardless of whether LNG is exported, EIA found, domestic bills for both gas

and electricity will go up.

The average of the cases considered showed end users' natural gas bills going up 3 to 9 percent above the no-export case, with electric bills going up 1 to 3 percent over the no-export case.

Other studies -- and the vast majority of industry observers -- agree that prices will eventually head back north. At today's rates, companies with high costs are finding production uneconomic and shutting it off, while those that can have shifted to drilling in areas where natural gas liquids and oil co-production improve the cost-benefit equation (EnergyWire, April 16).

Over time, the shutdown of wells will drive prices to a higher level, but in the meantime small producers are squeezed and even some large ones are struggling.

As Bill Cooper, president of the Center for LNG, put it: "In a generic sense, manufacturers should be aligned with the LNG industry on exports. But with natural gas as a feedstock for their products, they are concerned with where the market will go. So, I think they are a little bit conflicted as to what their position should be."

Gas drillers wrangle over state limitations and bans

Advance-News (Ogdensburg, NY) - Monday, May 14, 2012
Author: MARY ESCH Associated Press

ALBANY - With all the restrictions in proposed state regulations and local bans, gas companies say about half of their lease holdings in the lucrative Marcellus Shale region in New York state will be off-limits or inaccessible to drilling if the state gives the green light to developers this year.

A coalition of environmental groups is pushing for a complete ban on shale gas drilling, but the industry and landowners hoping to lease to drillers are working to lift some of the restrictions and halt the movement toward local bans.

"Industry estimates that when you look at the cumulative effect of prohibitions and setbacks, 40 to 60 percent of their leasehold is effectively undevelopable," said Tom West, an Albany lawyer representing gas companies.

The Marcellus is a gas-rich shale deposit thousands of feet underground in parts of Pennsylvania, New York, Ohio and West Virginia. It’s estimated to contain 84 trillion cubic feet of recoverable natural gas, enough to supply the nation’s gas-burning electrical plants for 11 years.

The formation produced just over 1 trillion cubic feet of gas in Pennsylvania last year, providing $3.5 billion in gross revenues for drillers and more than $400 million in landowner royalties, according to an analysis by The Associated Press.

Industry insiders and environmental groups say it’s impossible to quantify how much gas would be off-limits to production under the various bans and restrictions in New York because the amount of gas that can economically be extracted won’t be known until wells are drilled.

Drilling hasn’t been allowed since 2008, when the state began an environmental review of high-volume hydraulic fracturing , or fracking , which frees gas from shale by injecting a well with millions of gallons of water mixed with chemicals and sand. After drillers poured into Pennsylvania in 2008, environmental problems including methane-contaminated private water wells, salt in rivers from wastewater dumping and spill-polluted streams prompted regulatory reforms in that state and touched off a vocal opposition movement in New York.

The Marcellus Shale comprises 20,569 square miles beneath 23 counties across the southern half of New York, with the most gas likely to come from areas where the shale is thickest and deepest underground. That’s in the counties along the Pennsylvania border, with the prime area considered to be in Broome and Tioga counties and parts of Chenango and Chemung counties.

About 25 municipalities have enacted bans on gas drilling, and about 75 others have enacted moratoriums. Dozens of other communities are considering them. That amounts to 1,015 square miles of the Marcellus region under local bans, 2,171 square miles under moratorium and more than 2,400 square miles under consideration for a ban or moratorium, said Karen Edelstein, a geographic information systems consultant in Ithaca who closely follows the oil and gas industry and serves as a consultant for environmental groups.

The majority of those communities are outside the region most likely to see development. Only one, the city of Binghamton, is in one of the prime counties, Broome.

The Joint Landowners Coalition of New York, which represents about 70,000 landowners seeking to lease land for gas drilling, is working to counter the push for municipal bans. The group has drafted a resolution supporting gas drilling, and several town boards have adopted it. Members of the coalition also have lobbied in towns considering bans and have had some success blocking them.

"We maintain that these local bans are illegal under New York law and that they will be overturned in court," said Karen Moreau, executive director of the New York State Petroleum Council.

Two of the bans, in Middlefield and Dryden, were upheld by local judges but are under appeal.

Another concern is restrictions proposed in state permitting guidelines and environmental regulations that are undergoing final review and may be enacted later this year.

DEC is proposing to make the watersheds of New York City and Syracuse off-limits to drilling, which amounts to about 1,700 square miles. More land is made off-limits by protected buffers and setbacks within state parks, forests and wildlife management areas and rules protecting water supplies.

When three drilling companies tried to plot out where to locate drilling pads on their leased lands in New York, they found in many cases the state's limits made the task impossible, West said in an interview with the AP.

The Independent Oil and Gas Association of New York argues in comments submitted to DEC that some of the setbacks should be reduced or removed because they're arbitrary rather than based on scientific data or case studies. In other cases, it argues that DEC should grant waivers or exceptions when operators demonstrate that adequate protections exist. That's standard practice in Pennsylvania, West said.

Environmental groups argue that the setbacks proposed by DEC may not be sufficient to protect water supplies.

"For industry to be now seeking loopholes and workarounds for the state's proposed setbacks suggests that they still don't understand the strong level of public concern," said Eric Goldstein of the Natural Resources Defense Council.

If the state's setbacks prevent a gas company from locating a drilling pad within a single, 640-acre drilling unit, that would deprive those landowners of $30 million in royalties over the life of the well, West reasoned, based on what some Pennsylvania wells are producing.

Moreau said fragmenting the landscape with restrictions will increase the environmental footprint of gas development because companies may be forced to put in more well pads and associated pipelines and access roads to get at the gas, rather than locating one well in a geologically ideal area.

"We want a high environmental bar in New York," West said. "But when you have so many restrictions that it makes it impossible to drill, it's gone too far."

Anti- fracking rallies, concert coming to Albany

Associated Press State Wire: New York (NY) - Monday, May 14, 2012
ALBANY, N.Y. (AP) — Opponents of natural gas drilling using hydraulic fracturing are planning a big day of action in Albany, culminating with a star-studded concert at the Empire State Plaza.

New Yorkers Against Fracking , a new coalition of organizations calling for a fracking ban, plans a rally and multi-media concert Tuesday afternoon and evening. The event features actors Mark Ruffalo and Melissa Leo acting as hosts of the concert at the Egg Center for the Performing Arts. Tickets range from $40 to $150.

Musicians include Natalie Merchant, Joan Osborne, Tracy Bonham and numerous others.

Another group, Frack Free Nation, is holding an Occupy-style daylong series of events based in a park across from the state Capitol. Actions planned include a "die-in" and a prayer ceremony with water carried from the Hudson River.

Zenbu Water Solutions LLC Selects Latitude Solutions , Inc. To Remediate Their Commercial Wastewater Needs
PR Newswire (USA) - Monday, May 14, 2012
Author: Latitude Solutions, Inc

BOCA RATON, Fla., May 14, 2012 /PRNewswire/ --

Latitude Solutions, Inc. (OTC: LATI), a water engineering and remediation company, announced today that their patented IWS technology has been selected by

Zenbu Water Solutions LLC. Starting immediately,

Zenbu Water Solutions LLC provides a platform for the worldwide distribution of Latitude Solutions industry leading Electro Precipitation™ Technology.

Zenbu has offices in Denver, Colorado; Tokyo, Japan;

Shanghai, China; and has plans to open an office in Dubai in 2012.

Mr. Jeffrey Wohler, Latitude Solutions CEO, states, "Latitude Solutions is expanding our service

and product offerings.

Partnering with Zenbu Water Solutions LLC, who has proven experience and distribution capabilities will further our efforts.

This announcement demonstrates our business model and highlights the growing acceptance of Latitude's state of the art technology. Our goal for 2012, to deploy our patented water remediation technology across multiple industries including: Oil & Gas, coal fired power plants, food processing, paper and pulp and medical markets will be accelerated by this alliance."

Mr. Cleve Tidwell, CEO of Zenbu Water Solutions, added, "The clients that we represent recognize the importance and cost effectiveness involved when they re-use and reclaim produced and flow back wastewater. After an extensive search we selected Latitude Solutions, Inc. because of their industry leading Electro Precipitation™ technology and their ability to produce, operate and manage for each individual need.

There are a few early stage electro coagulation systems on the market that pose as just equipment companies but few seem to deliver a solution to the clients problems with just selling one machine.

Our business model at Zenbu Water Solutions LLC is in line with Latitude Solutions, Inc. to evaluate the complete problem and delivering a solid solution. Due to this new alliance, we will now allow a more

effective and economical solution to be offered to our clients."

About Latitude Solutions, Inc.

Latitude Solutions, Inc. provides innovative wastewater remediation solutions worldwide to Oil & Gas, energy, mining, food processing, agricultural and other industrial users worldwide utilizing its patented Electro Precipitation™, (EP™) technology. LSI's proprietary Electro Precipitation™, Integrated Water Systems™ (IWS™) technology provides a sustainable solution to water related oil and gas production issues by rendering previously unusable production, flowback and other contaminated water suitable as reusable makeup water for ongoing operations, including hydraulic fracturing . This re-use process significantly reduces costs.

About Zenbu Water Solutions LLC

Zenbu Water Solutions LLC is a private company with headquarters in Denver, Colorado.

Zenbu was previously wholly owned by Zenbu Global, Inc. until 2010 when it spun off as a private company.

Our design team of engineers are ready to assist you solve your water treatment concerns. We will analyze your water results to assist you in a solution to solve your water treatment requirements.

The elimination of chemicals in processing wastewater is proving to be a welcome change to our customers by saving them money and creating a safer environment.

The IWS Technology that we selected will be a big asset to the industry.

This new release may contain certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Investors are cautioned that such forward-looking statements involve risks and uncertainties, including without limitation, acceptance of the Company's products, increased levels of competition for the Company, new products and technological changes, the Company's dependence on third-party suppliers, and other risks detailed from time to time in the Company's periodic reports filed with the Securities and Exchange Commission.

SOURCE Latitude Solutions, Inc

Baker Hughes Assigned Patent for Method of Fracturing a Subterranean Formation at Optimized and Pre-determined Conditions

Targeted News Service (USA) - Monday, May 14, 2012

ALEXANDRIA, Va., May 14 -- Baker Hughes, Houston, has been assigned a patent (8,171,992) developed by Harold Dean Brannon, Magnolia, Texas, for a "method of fracturing a subterranean formation at optimized and pre-determined conditions."

The abstract of the patent published by the U.S. Patent and Trademark Office states: "Prior to a hydraulic fracturing treatment, .DELTA.SG.sub.PS for a desired propped fracture length, D.sub.PST, may be estimated wherein .DELTA.SG.sub.PS=SG.sub.prop-SG.sub.fluid (SG.sub.prop being the specific gravity of the proppant and SG.sub.fluid being the specific gravity of the transport fluid) in accordance with Equation (I): .DELTA.SG.sub.PS=(A).times.(1/q.sub.i).times.(D.sub.PST).sup.B.times.(1/C-.sub.TRANS).times.(1/d.sup.2.sub.prop).times.(.mu..sub.fluid) (I) wherein: A is the multiplier and B is the exponent from the Power Law equation of velocity of the transport slurry vs. distance for the fracture geometry; q.sub.i is the injection rate per foot of injection height, bpm/ft; C.sub.TRANS is the transport coefficient; d.sub.prop is the median proppant diameter, in mm.; and .mu..sub.fluid is the apparent viscosity of the transport fluid, in cP." The patent application was filed on Sept. 23, 2011 (13/243,650). The full-text of the patent can be found at http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&co1=AND&d=PTXT&s1=8,171,992&OS=8,171,992&RS=8,171,992

Written by Arpi Sharma; edited by Anand Kumar.

AS0514AK0514-737506
Memo: Call 800/786-9199 (in the U.S. or Canada) or 703/308-4357 for assistance from a U.S. Patent & Trademark Office Customer Service Representatives and/or access to the automated information message system.

Heat On-The-Fly Assigned Patent

Targeted News Service (USA) - Monday, May 14, 2012
ALEXANDRIA, Va., May 14 -- Heat On-The-Fly, Covington, La., has been assigned a patent (8,171,993) developed by Ransom Mark Hefley, Elk City, Okla., for a "water heating apparatus for continuous heated water flow and method for use in hydraulic fracturing ."

The abstract of the patent published by the U.S. Patent and Trademark Office states: "A method of hydraulic fracturing of an oil producing formation includes the provision of a heating apparatus which is transportable and that has a vessel for containing water. A water stream of cool or cold water is transmitted from a source to a mixer, the cool or cold water stream being at ambient temperature. The mixer has an inlet that receives cool or cold water from the source and an outlet that enables a discharge of a mix of cool or cold water and the hot water. After mixing in the mixer, the water assumes a temperature that is suitable for mixing with chemicals that are used in the fracturing process, such as a temperature of about 40.degree. -120.degree. F.+(4.4 - 48.9.degree. C.+). An outlet discharges a mix of the cool and hot water to surge tanks or to mixing tanks. In the mixing tanks, a proppant and an optional selected chemical or chemicals are added to the water which has been warmed. From the mixing tanks, the water with proppant and optional chemicals is injected into the well for part of the hydraulic fracturing operation." The patent application was filed on July 23, 2010 (12/842,738). The full-text of the patent can be found at
http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&co1=AND&d=PTXT&s1=8,171,993&OS=8,171,993&RS=8,171,993

Written by Arpi Sharma; edited by Anand Kumar.

AS0514AK0514-737504
Memo: Call 800/786-9199 (in the U.S. or Canada) or 703/308-4357 for assistance from a U.S. Patent & Trademark Office Customer Service Representatives and/or access to the automated information message system.

BUREAU OF LAND MANAGEMENT ISSUES PROPOSED RULE ABOUT REGULATING HYDRAULIC FRACTURING ON PUBLIC LAND INDIAN LAND

US Fed News (USA) - Monday, May 14, 2012
WASHINGTON, May 14 -- Bureau of Land Management has issued a proposed rule called: Oil and Gas; Well Stimulation, Including Hydraulic Fracturing , on Federal and Indian Lands.

The proposed rule, published in the Federal Register on May 11 by Marcilynn Burke, Acting Assistant Secretary, Land Minerals Management, states: "The Bureau of Land Management (BLM) is proposing a rule to regulate hydraulic fracturing on public land Indian land. The rule would provide disclosure to the public of chemicals used in hydraulic fracturing on public land Indian land, strengthen regulations related to well-bore integrity, and address issues related to flowback water. This rule is necessary to provide useful information to the public and to assure that hydraulic fracturing is conducted in a way that adequately protects the environment."

For more information, contact Steven Wells, Division Chief, Fluid Minerals Division, 202-912-7143 for information regarding the substance of the rule or information about the BLM's Fluid Minerals Program. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 to contact the above individual during normal business hours. FIRS is available 24 hours a day, 7 days a week to leave a message or question with the above individual. You will receive a reply during normal business hours.

The full text of the notice can be found at:
http://www.gpo.gov/fdsys/pkg/FR-2012-05-11/html/2012-11304.htm

For any query with respect to this article or any other content requirement, please contact Editor at htsyndication@hindustantimes.com

Jack Groverland: Don't believe that fracking poses no threat to human health
Daily Camera, The (Boulder, CO) - Sunday, May 13, 2012
Just reading the Camera article (May 8, front page) citing the review of the National Oceanic and Atmospheric Administration's research is enough to make people sick.

Pinyon Environmental Inc., who reviewed the NOAA research, states that the alarming measures of propane and benzene caused by fracking pose no threat to human health. Why does this sound like the deceitful claims of the tobacco industry regarding the effects of nicotine on human health?

"Pinyon E-" state that we humans could breathe these pollutants at their present levels for a lifetime without any ill effects. If you believe that you either haven't gone on line to research the voluminous information available on fracking or you haven't watched the documentary "Gasland." My question to you Pinyon E-, how many more fracking sites added to the town of Erie would constitute a health hazard, or should everyone in Erie just purchase a canary?

Kudos to Jennifer Palazzolo for spear heading the opposition to fracking , and pointing out that just 2 of the hundreds of chemicals used in a fracking operation were considered in the Pinyon E-review. Let's have honest research into all these toxic chemicals that each of these fracking operations blast into the earth multi-thousands of gallons at a time. Why won't the oil and gas companies involved in hydraulic fracking disclose the names of these chemicals so they can be honestly & independently researched, unless they are hazardous to human health and the environment?

There is scientific evidence that hydro fracking is responsible for polluting ground water and the air we breathe, not to mention recent findings that it causes earthquakes. My suggestion to my neighbors in Erie, rent the documentary "Gasland." Invite the mayor and city council to view it, along with you and the children who will be attending the school nearest to the next proposed fracking site. Please don't wait until there are no birds in Erie-ban these lethal fracking operations now.

JACK GROVERLAND Boulder

Public info meeting on hydrofracking - SOUTH BRISTOL
Daily Messenger (Canandaigua, NY) - Sunday, May 13, 2012
information relative to the issue of hydrofracking , with a presentation by guest speaker John Holko of the Independent Oil & Gas Association of New York.

The Town of South Bristol Planning Board will hold a public informational meeting at 7 p.m. Wednesday, May 16, at the Town Hall, 6500 Gannett Hill Road, in the hamlet of Bristol Springs.

The purpose of the meeting is to gather.

Land rush tied to oil, gas deposits
Herald & Review (Decatur, IL) - Sunday, May 13, 2012
McLEANSBORO (AP) — It's not a festival or the 19th century architecture that's drawing the late-model cars from Texas, Oklahoma, Louisiana and Pennsylvania to the downtown square in this tiny, Southern Illinois community.

It's the musty vault inside the county courthouse, where secretive visitors have converged in a hunt for underground riches.

For months, out-of-staters known in the business as "land men" have descended on this 2,900-resident

city, lining up to comb through bulky books of yellowed property records dating to the 1800s. The aim is to find choice parcels in a veritable land rush tied to the prospect of reaching previously inaccessible oil and natural gas deposits in the region.

They're a guarded bunch armed with laptops and legal pads, refusing for competitive reasons to reveal who they're working for. But they confide they're painstakingly pinpointing ownership of rights to a shale formation thousands of feet underground for clients hoping to exploit trendy yet controversial horizontal drilling techniques.

"I've never seen this kind of activity," said Mary Anne Hopfinger, Hamilton County's clerk for the past six years.

The suddenly intense interest in Southern Illinois stems from a belief that the region's New Albany Shale, a formation of rock roughly 5,000 feet below the surface, contains oil and other liquid hydrocarbons that are rarer, and far more profitable, than natural gas.

Energy companies have learned in recent years how to tap huge amounts of once-inaccessible oil and gas in the United States using a drilling practice called hydraulic fracturing . Commonly known as fracking , the technology uses sand and chemical-laced water to blast open shale and create escape routes for oil and gas trapped inside.

They have found so much natural gas that the nation's storage facilities are

projected to reach their limits later this year. Prices have fallen to lows not seen in a decade, so low that drillers are abandoning plans to explore for new natural gas because it is no longer profitable.

But drilling for oil in shale formations, if it can be found, is still extraordinarily profitable because world oil prices remain high.

The U.S. Geological Survey believes that Illinois' shale, hundreds of thousands of years old, may hold 1 trillion to 8 trillion cubic feet of natural gas, just a fraction of 22 trillion cubic feet U.S. consumers go through every year.

By contrast, the "gas rush" is most pronounced in the Marcellus Shale, geographically stretching from Ohio to New York and beneath roughly two-thirds of Pennsylvania. It's believed to hold one of the biggest natural gas resources in the country, 43 trillion to 144 trillion cubic feet by the Geological Survey's count.

Environmental groups and other critics of hydraulic fracturing believe the chemicals have polluted drinking water supplies, though the industry says there's no proof.

State lawmakers are responding, updating mining laws to regulate such extraction and safeguard groundwater. Across Illinois and some two dozen other states, nearly 140 fracking -related bills have been introduced, many of which would require public disclosure of fracking fluids, according to the National Conference of State Legislatures. Similar federal rules have been proposed by the Obama administration for public and American Indian lands.

"If states enact legislation that makes disposal (of fracking chemicals) more expensive, companies may redo their calculations, but many companies are jumping in," said Chris Swezey, a Virginia-based Geological Survey research geologist.

The new hydraulic fracturing and horizontal drilling techniques have unlocked huge reserves of oil in North Dakota, Texas, Colorado, Wyoming and Oklahoma. It has helped U.S. oil production grow for three years straight after 23 years of declines.

Proponents of the practice tout the economic benefits, including the creation of thousands of Illinois jobs and millions in tax revenues in a state swimming in red ink.

Any such boost would be welcomed in Illinois coal country. The economic need can be clearly seen about 110 miles southeast of St. Louis in McLeansboro, where empty storefronts stand among buildings dating to a time before cars and when Mark Twain was publishing his most famous works. Unemployment rates in the region top 8 percent.

The scouting of Southern Illinois may portend a boon for the region, but it's been a headache at times for county clerks.

In Wayne County, Clerk Glenda Young estimates her Fairfield office has hosted 30 to 35 land scouts a day. Their interest is reflected in the $6,000 to $10,000 worth of copies or related services Young's staff has provided for them each month.

In nearby Saline County, six computerized "search stations" in Clerk Kim Buchanan's office have been in hot demand for two years among agents from energy companies largely based in the South.

The "land men" cling to anonymity, shooing away a reporter as they hunker down in the courthouse vaults. One of them, a hulking Texan who has spent the past month plodding through Hamilton County's land records, called the sleuthing "a lot like a puzzle," tracing back some parcels to when Illinois became a state in 1818.

"It can get a little hard on the eyes, but it's certainly exciting work," added another Texan who spent the past couple of weeks working the same vault. He previously spent two months in Wayne County.

In McLeansboro, the records search has spilled over into tables set up in the hallway outside Hopfinger's office.

But not everyone is thrilled about what the research may bode.

At Mimmo's Pizza across from the courthouse, 19-year-old server Tara Castillo has noticed an uptick in strangers sampling the lunchtime buffet since the land rush began. She studied fracking during a social problems class at a community college, and figures the environmental costs outweigh the jobs it could create.

"I wouldn't let someone frack on my land," she said. "I just don't think a little more oil is worth the risk."

Still Not the Last Word on Fracking

Pilot, The (Southern Pines, NC) - Sunday, May 13, 2012
Though it was called "the final report" on fracking in North Carolina, let's not allow it to be the last word.

We're talking about the paper that the N.C. Department of Environment and Natural Resources (DENR) sent to the General Assembly the other day with regard to hydraulic fracturing , the controversial method of extracting natural gas from deep underground. It responded to some concerns but left too many others unaddressed.

The report purports to give the legislature all the background information it needs as it ponders whether to legalize the procedure. It offers the conclusion that fracking "can be done safely" if the lawmakers put enough tailor-made standards in place and sink "sufficient resources" into setting up an adequate regulatory system.

But one still wonders whether even this preliminary investment is a wise one, especially at a time when so many other needs cry out for funding.

Landowners Justifiably Cautious

Fracking involves pumping millions of gallons of water deep underground. Much of that water has to be trucked in, with accompanying damage to fragile country roads. Because of the presence of certain shale deposits in the Deep River Basin covering parts of Lee, Moore and Chatham counties, any discussing of

prospects for fracking in North Carolina have focused there.

Most of the mineral-rights leases that landowners have already signed with gas companies are in Lee - totaling about 9,000 acres so far. Those leases were signed mostly in the year 2010, when company representatives began appearing like vultures, and some of those leases will begin expiring as early as next year.

In the initial rush, some people clearly signed up without knowing what they were getting into. Since then, nonprofit groups have conducted workshops throughout the affected area to educate property owners. At least partly as a result of that, residents in upper Moore appear to be taking an extremely cautious approach, with few or no signings so far. And that caution would appear to be well-justified.

A Colossal Gamble

Most fracking so far has taken place in states with a history of oil drilling, and plenty of alarms have been sounded. But it could be even worse here. Our soil is different. And our gas is said to be about 3,000 feet down, as opposed to 10,000 in, say, Pennsylvania, meaning it's much closer to our water table.

Supporters have thrown some impressive figures around, but some of them may be bogus. The new state study estimates that fracking in our region would sustain an average of 387 jobs per year during first seven years of production; that the operation would boost the economy of North Carolina as a whole by $453 million by the completion of all drilling in state; and that it would meet the state's natural gas needs for 30 years.

But most of those jobs would probably be filled by outsiders who would flock to our area and strain our infrastructure for a few years before disappearing in search of new work. The money wouldn't necessarily stay here, either. And neither would the gas itself, which would be sold on the global market.

In short, the whole thing is looking like a colossal gamble, with no assurances of positive results. That's why we should be going slow - if at all.

Drillers wrangle over New York limitations

Republican-American (Waterbury, CT) - Sunday, May 13, 2012
Author: Associated Press

ALBANY, N.Y. - With all the restrictions in proposed state regulations and local bans, gas companies say about half of their lease holdings in the lucrative Marcellus Shale region in New York state will be off-limits or inaccessible to drilling if the state gives the green light to developers this year.

A coalition of environmental groups is pushing for a complete ban on shale gas drilling, but the industry and landowners hoping to lease to drillers are working to lift some of the restrictions and halt the movement toward local bans.

"Industry estimates that when you look at the cumulative effect of prohibitions and setbacks, 40 to 60 percent of their leasehold is effectively undevelopable," said Tom West, an Albany lawyer representing gas companies.

The Marcellus is a gas-rich shale deposit thousands of feet underground in parts of Pennsylvania, New York, Ohio and West Virginia. It's estimated to contain 84 trillion cubic feet of recoverable natural gas, enough to supply the nation's gas-burning electrical plants for 11 years.

The formation produced just over 1 trillion cubic feet of gas in Pennsylvania last year, providing $3.5 billion in gross revenues for drillers and more than $400 million in landowner royalties, according to an analysis by The Associated Press.

Industry insiders and environmental groups say it's impossible to quantify how much gas would be off-limits to production under the various bans and restrictions in New York because the amount of gas

that can economically be extracted won't be known until wells are drilled.

Drilling hasn't been allowed since 2008, when the state began an environmental review of high-volume hydraulic fracturing , or fracking , which frees gas from shale by injecting a well with millions of gallons of water mixed with chemicals and sand. After drillers poured into Pennsylvania in 2008, environmental problems including methane-contaminated private water wells, salt in rivers from wastewater dumping and spill-polluted streams prompted regulatory reforms in that state and touched off a vocal opposition movement in New York.

The Marcellus Shale comprises 20,569 square miles beneath 23 counties across the southern half of New York.

, with the most gas likely to come from areas where the shale is thickest and deepest underground. That's in the counties along the Pennsylvania border, with the prime area considered to be in Broome and Tioga counties and parts of Chenango and Chemung counties.

About 25 municipalities have enacted bans on gas drilling, and about 75 others have enacted moratoriums. Dozens of other communities are considering them. That amounts to 1,015 square miles of the Marcellus region under local bans, 2,171 square miles under moratorium and more than 2,400 square miles under consideration for a ban or moratorium, said Karen Edelstein, a geographic information systems consultant in Ithaca who closely follows the oil and gas industry and serves as a consultant for environmental groups.

The majority of those communities are outside the region most likely to see development. Only one, the city of Binghamton, is in one of the prime counties, Broome.

The Joint Landowners Coalition of New York, which represents about 70,000 landowners seeking to lease land for gas drilling, is working to counter the push for municipal bans. The group has drafted a resolution supporting gas drilling, and several town boards have adopted it. Members of the coalition also have lobbied in towns considering bans and have had some success blocking them.

"We maintain that these local bans are illegal under New York law and that they will be overturned in court," said Karen Moreau, executive director of the New York State Petroleum Council.

Two of the bans, in Middlefield and Dryden, were upheld by local judges but are under appeal.

Another concern is restrictions proposed in state permitting guidelines and environmental regulations that are undergoing final review and may be enacted later this year.

DEC is proposing to make the watersheds of New York City and Syracuse off-limits to drilling, which amounts to about 1,700 square miles. More land is made off-limits by protected buffers and setbacks within state parks, forests and wildlife management areas and rules protecting water supplies.

When three drilling companies tried to plot out where to locate drilling pads on their leased lands in New York, they found in many cases the state's limits made the task impossible, West said in an interview with the AP.

The Independent Oil and Gas Association of New York argues in comments submitted to DEC that some of the setbacks should be reduced or removed because they're arbitrary rather than based on scientific data or case studies. In other cases, it argues that DEC should grant waivers or exceptions when operators demonstrate that adequate protections exist. That's standard practice in Pennsylvania, West said.

Environmental groups argue that the setbacks proposed by DEC may not be sufficient to protect water supplies.

"For industry to be now seeking loopholes and workarounds for the state's proposed setbacks suggests

that they still don't understand the strong level of public concern," said Eric Goldstein of the Natural Resources Defense Council.

If the state's setbacks prevent a gas company from locating a drilling pad within a single, 640-acre drilling unit, that would deprive those landowners of $30 million in royalties over the life of the well, West reasoned, based on what some Pennsylvania wells are producing.

Moreau said fragmenting the landscape with restrictions will increase the environmental footprint of gas development because companies may be forced to put in more well pads and associated pipelines and access roads to get at the gas, rather than locating one well in a geologically ideal area.

"We want a high environmental bar in New York," West said. "But when you have so many restrictions that it makes it impossible to drill, it's gone too far."

Alfred Board Prodded To Get Moving On Hydrofracking Issue

Evening Tribune, The (Hornell, NY) - Friday, May 11, 2012
Author: Neal Simon; The Evening Tribune

ALFRED - Residents in Alfred opposed to hydrofracking turned up the heat on the town board Thursday night, prodding council members to take new action and scolding the board for not keeping the public informed.

Board members seemed to get the message. They agreed to push the Alfred Planning Board to produce a new road preservation law within 60 days. Approximately seven months remain on Alfred's hydrofracking moratorium.

Officials said a preservation law would place limits on how town roads are used, restricting travel by trucks used for heavy industry and assessing penalties for damage caused by vehicles involved in energy extraction. Board member Mary Stearns said a law has more muscle than a simple "board resolution" on road use in the township.

Some town officials pushed back against the public complaints, saying the board is acting as expeditiously as it can. Town board member Donald Lang said, "We can extend the moratorium if need be." Supervisor Tom Mansfield said lawmakers have devoted a great deal of time to hydrofracking , researching the best options for the town and answering questions at board meetings.

"I think we have heard the public very well, and we are working on what the public wants," Mansfield said.

Resident Graham Marks noted that the town has nearly reached the halfway point of its 12-month hydrofracking moratorium, and he asked "what the plan moving forward is."

Other residents who attended Thursday night's board meeting encouraged the panel to put notices in local newspapers following each meeting, listing the latest developments on the issue. Some said they feared that no news could be bad news, questioning whether there is still a commitment on the board to keep hydrofrackers out of Alfred.

"We are trying to do it the right way," Councilman Jerry Snyder responded. "We know the desire of the community. I guess I would ask for continued patience."

Snyder said town board duties are not limited to the hydrofracking issue. "We have work to do," he said.

So does the Alfred Planning Board, which now has about two months to draft a road preservation law. Board member Fion MacCrae said he would act as a liaison to the planning panel and attend its next two meetings. Noting that the planning board has been working on hydrofracking legislation for several months, Stearns said the groundwork for a road preservation law is in place. Officials would like to have a draft in time for their July meeting.

"That should be well on the way to being done," Stearns said.

Mansfield said Thursday he has not heard from the planning board about whether it has installed a replacement for Rene Richardson. Richardson stepped down as chairperson of the board this month. In April, Mansfield said he would prefer Richardson's successor come from the board's current membership. Officials have said they don't believe a void in the top leadership position on the planning group will have an impact the hydrofracking issue.
Memo: 'We are trying to do it the right way. We know the desire of the community. I guess I would ask for continued patience.'

COUNCILMAN JERRY SNYDER

Anti- Fracking Message Spelled Out To Governor - Concerned Long Islanders call on state officials to 'Ban Fracking Now'
Farmingdale Observer (NY) - Friday, May 11, 2012
Author: KATIE PIACENTINI kpiacentini@antonnews.com

On May 3, Long Island environmental groups not only called on Governor Cuomo to ban hydro- fracking (fracking), a drilling technique that allows producers to extract gas from underground shale reserves, in New York State, but they clearly spelled it out. Participants in this demonstration held up signs with different letters to provide the following message: "Governor Cuomo: Ban Fracking Now." Sponsored by New Yorkers Against Fracking , a coalition of more than 80 organizations working to ban fracking in New York, this event was a part of a statewide day of action.

While this event took place at the North Hempstead Town Dock in Port Washington, other events were held in Buffalo, Manhattan, Endicott, Stone Ridge and Albany. Due to the efforts of the statewide coalition, more than 200, 000 petitions calling on Governor Cuomo to ban fracking were delivered to his office on May 2, said organizers at the Port Washington demonstration.

Sam Bernhardt, Long Island organizer for Food & Water Watch, a national organization working to ban fracking in New York State, stated that fracking operators have a track record of contamination of water across the country. "We don't want to bring that track record here to New York - that's why we're here today, calling on Governor Cuomo and our local officials to ban fracking in New York." Participants at this demonstration hailed from many different environmental organizations across Long Island. Pete Suchmann, a member of the environmental organizations Operation Splash and Sludge Stoppers, spoke on the importance of educating children on these issues. "As a retired science teacher - 30 years at the Great Neck School District - I would like to ask all teachers to discuss this issue and related issues in their classrooms, challenging their students to do research and then to take action," Suchmann said. "It is important for every student to know it is their responsibility to be an informed and an involved activist, to question the issues in the news and to take actions consistent with their understandings," he added.

Patty Katz, chair of the green committee of Reach Out America, said, "I'm very proud to be a New Yorker, because a lot of times we don't rush into things. And right now states like Pennsylvania, Ohio and Wyoming are feeling the repercussions of their decisions to extract natural gas." Stating that rights to clean air and water must be protected at all costs, Katz asked the question, "If fracking is so safe, why are the gas companies exempted from the Clean Air and Water Act?" Patti Wood, executive director of Grassroots Environmental Education, an environmental nonprofit organization based in Port Washington, said, "All of our personal and local efforts to protect our families from environmental contaminants will be in vain if Governor Cuomo permits horizontal hydro- fracking in New York State." She also expressed gratitude for elected officials who have taken up this cause in Albany, and explained that State Senator Tony Avella has sponsored legislation that calls on the DEC to produce a health impact assessment of fracking and he is sponsoring another bill to ban fracking .

Sam Bernhardt stated that local organizers are also calling on Long Island elected officials - specifically state senators Dean Skelos and Jack Martins - to support legislation to ban fracking in New York.

"Senator Martins' recent support for a one-year moratorium on fracking is a good step toward a ban on

fracking in New York, providing for more time to work towards a ban on this dangerous process, and it illustrates bipartisan opposition to fracking ," Bernhardt said. "However, his co-sponsorship of the one-year moratorium is not enough. Senator Martins needs to support legislation to ban fracking and he must actively work as a member of the senate majority to move legislation that prevents fracking in New York," he added.

It should be noted that Senator Martins has been speaking out against fracking since last fall. In his weekly column "From the Desk of Senator Jack Martins," which is published in several of the Anton Community Newspapers, Martins wrote on the topic of fracking in a column titled "Let's Look Before We Leap." In this column, published Nov. 3, 2011, Martins stated that New York has bedrock formations known as the Marcellus and Utica Shales that could produce an economic windfall for this state if they are opened to fracking , but he also said that there are still questions on the safety and environmental impact of the process.

Martins wrote, "Simply put, relatively short-term economic benefit cannot be permitted to trump long-term ecological concerns. We have an intergenerational responsibility to our children to ensure that decisions we make do not negatively impact the environment, especially when it involves the viability of our drinking water.

When these concerns are properly addressed, then sure, we can certainly use the jobs and economic benefit that hydrofracking provides. But until then, it bears repeating, the gas is going nowhere." In a comment to Anton Community Newspapers, the senator's press office further explained that Martins is co-sponsoring a bill for a moratorium, banning fracking for another year. It was noted that the DEC received so many public comments for its environmental review that the DEC commissioner said it would not be ready until this summer. Since the current moratorium expires this year on June 1, adding another year to the moratorium ensures that fracking will still be prohibited when the DEC report is released and it allows the state legislature more time to review the DEC's findings. Martins' press office stated that based on the information that is out there, Senator Martins remains opposed to hydro- fracking .

According to the NY State Senate, the anti- fracking bills that are sponsored by Senator Avella are being amended by the environmental conservation committee, of which Martins is not a member. Once the bill passes the committee, all state senators, including Martins, will have the opportunity to vote on these bills.

Caption: The group not only called on Governor Cuomo to ban fracking , but they spelled it out, too. Photo by Katie Piacentini.

Interior Secretary confident oil and gas development can move forward

Midland Reporter-Telegram (TX) - Wednesday, May 9, 2012
Author: Mella McEwen Midland Reporter-Telegram

ANDREWS COUNTY -- Standing at ConocoPhillips' well, Interior Secretary Ken Salazar stressed support for domestic oil and gas production while encouraging the industry to take steps to conserve local habitat.

Salazar was accompanied during his trip north of Goldsmith by Dan Ashe, U.S. Fish and Wildlife Service Director, who is under a court deadline to make a decision by mid-June on whether or not to list as endangered the dunes sagebrush lizard. Approximately 27 percent of the lizard's shinnery oak dunes habitat lies in West Texas, much of it in the region's most productive oil and gas counties.

Local residents and operators fear the listing will halt the oil and gas activity that has fueled the local economy and created thousands of jobs.

To those with these concerns, Salazar said, "Be not afraid. I feel we will be able to find common ground and support domestic production while keeping up with our core value of conservation."

He pointed to an agreement he signed earlier this week in Utah that will allow Anadarko Petroleum to drill up to 3,675 natural gas wells in eastern Utah while agreeing not to drill along the high cliffs of the White River and buying private land along the river for conservation.

Salazar said he and Ashe came to the Permian Basin for a "first-hand view of what's happening with oil and gas operations and conservation." He noted that 95 percent of the lizard's shinnery oak habitat in New Mexico was enrolled in conservation agreements. "We want Texas to have the same opportunity," he said. About 70 percent of the lizard's habitat in Texas has been enrolled since the conservation plan was announced in February.

ConocoPhillips employees gave the officials a tour of the well site, demonstrating a sucker rod and turning on the pumping unit. Bill Patterson, ConocoPhillips' general manager of its Mid-Continent Business Unit, explained the well averaged 11 barrels of oil and 50 barrels of water a day and was completed using hydraulic fracturing technology.

Hydraulic fracturing required 2 million to 5 million gallons of water, Patterson said. "(That's) enough for 24 households for a year," he said. "But this well will produce enough energy to heat 1,500 homes for 20 years, so that's the trade-off. We are taking steps to minimize our footprint, we are making efforts to reuse produced water and lessen our impact on the environment."

Jim Benson, executive director of University Lands, which owns the property on which the well sits, described to Salazar and Ashe how University Lands manages its properties, employing staff who ensure they are kept clean and teams who help manage wildlife.

ConocoPhillips has enrolled its lands in the conservation plan to ensure its operations can continue whether or not the dunes sagebrush lizard is listed as endangered, Patterson said. The company believes the plan protects its right to develop and explore on its leases while protecting the lizard's habitat, he said.

Land Commissioner Jerry Patterson compared the plan to a man accused of murder who pleads guilty to manslaughter even though he knows he's innocent. Patterson and other officials, such as Railroad Commission Chairman Barry Smitherman, criticized the need for such an agreement, saying it was driven by a legal settlement with a non-governmental organization.

Ben Shepperd, president of the Permian Basin Petroleum Association, was not present for Salazar's visit. He did comment on Wednesday: "I have no problem with the theory of conservation plans when sound science supports a need. In this case, reputable science clearly indicates a conservation plan is uncalled for. The research finds resoundingly that the dunes sagebrush lizard is not threatened or endangered.

"The federal government came to the Permian Basin today to dangle a carrot. We will not list the lizard as endangered if you will cede private and state lands to federal control.

"I'd like to remind the U.S. Interior Department of our Texas history. After annexation, the Compromise of 1850 allowed Texas to keep as her own the land inside the state boundary. We knew then what we still know today. It's non-negotiable that Texas -- not the federal government -- retains jurisdiction over her oil-rich lands.

"The production from the Permian Basin fuels America. I see no need to surrender part of Texas to an administration in Washington D.C. that has shown only contempt for the oil it contains."

Asked about criticism of the plan by some operators and state officials, Bill Patterson said no agreement is perfect but that his company believes the plan protects Conoco's right to develop and explore on its leases while protecting the lizard's habitat.

Eileen Dey, ConocoPhillips' regulatory manager, said participation in the conservation plan "may preclude listing the species."

"That's what everyone wants, but this is an insurance policy," she said. "We committed ahead of time and will continue with our conservation efforts. If it's listed, they can't add more restrictions."

The conservation plan can require the company to avoid the lizard's habitat, Bill Patterson said. Depending on the actual drilling location, having to move that location could cost the company as much as $200,000.

"The idea that we can continue to drill is essential for us," he said.

If enough landholders enroll in an agreement, it may allow the Fish and Wildlife Service to conclude an endangered listing for the lizard is not needed, Ashe said. But, he said the service is under a court order to make a decision by mid-June. He added that he feels the proposal for listing the lizard was justified. He is confident there is a good understanding of the science and that the lizard's habitat has been lost to oil and gas operations, herbicides and fragmentation.

Ashe praised the leadership of oil companies in Texas and New Mexico in participating in conservation agreements, saying he believes those agreements can serve as a template for the rest of the nation in how to produce domestic energy sources while conserving habitat, a value that dates back to Teddy Roosevelt creating the national park system.

"We see here how it can be done, producing energy that powers the economy yet also preserving a little lizard. We certainly have our challenges, but I'm optimistic," Ashe said.

The area is facing other possible listings, Ashe said, referring to the lesser prairie chicken. "I think partnerships like we have here will help avoid those conflicts," he said. "When I was listening to the presentation about how ConocoPhillips is able to monitor its wells and adapt to changing conditions, so it is with the sand dune lizard and other species. If you take care of the habitat, watch and adapt, you can continue oil and gas activity."

Since becoming Interior secretary, Salazar said, "I've followed the direction President Obama gave me, which was to pursue an energy agenda of 'all of the above' -- oil and gas, solar, wind, nuclear, biofuels, while moving into the 21st Century a conservation agenda that goes back to Teddy Roosevelt so that huntsmen and others can enjoy nature."

Mella McEwen can be reached at mmcewen@mrt.com.

Action on water testing law put off

Buffalo News, The (NY) - Saturday, May 12, 2012
Author: Eileen Werbitsky - SOUTHTOWNS CORRESPONDENT

A public hearing on a proposed law in Holland that would require well water testing by companies drilling or doing hydraulic fracturing in the town brought out concerned residents Wednesday night, and action was postponed based on objections from National Fuel Gas.

Supervisor Michael Kasprzyk said the new law would require developers of oil or gas to test surrounding wells within a 1,500-foot radius of a drilling site so that a baseline water quality level could be established for those wells.

Four hundred residents rely on the municipal well in the hamlet, while more than 1,000 other residents rely on individual wells for their water.

Answering several questions, the supervisor said the new ordinance would apply to both vertical and the more controversial horizontal wells, but would not address storage of back flow in pits.

He noted that it would require a company to remedy any damage caused to local highways because of drilling equipment brought in.

Resident Henry Secord asked what would happen if a drilling operation contaminated wells. He was not satisfied when the supervisor said the new law would require the company to remedy it.

"It can't be done," Secord said. "The chemicals are a thousand feet below the ground. I wouldn't let them do fracking anywhere near here."

The board did not vote on the measure because of a letter the town received Tuesday from National Fuel Gas. The utility said the town does not have the authority to pass such restrictions into law.

Specifically, National Fuel stated, the Federal Energy Regulatory Commission requires a much smaller radius for testing.

The matter was referred to legal counsel for further review.

In other matters, the board scheduled a public hearing for 8 p.m. June 13 on a proposed local law to regulate garage sales in the town, particularly the frequency and number of days for a particular sale.

Also, the supervisor said the town is recommending that the town's three election districts be revised by Erie County to better balance the population. Kasprzyk said he will suggest that about 80 residents on South Protection Road be moved from District One to District Three.

RockPile keeps it local: Fracking company comes to Dickinson
Dickinson Press (ND) - Saturday, May 12, 2012
Author: April Baumgarten, The Dickinson Press, N.D.

May 12--A Denver-based company will open its first hydraulic fracturing facility in July, and its goal is to hire 100 residents from southwestern North Dakota by the end of the year.

"The local people here deserve the opportunity to work in the industry and be a participant in it as well," said Howard Rough, RockPile Energy Services vice president of business relations. "The other side of it is the local people understand the region. They care about it. This is their home and we want people to come and stay and be a part of the family."

RockPile will be on Villard Street west of Dickinson.

The facility will hold 10 million pounds of fracking sand, Rough said. Though the equipment was brought up from Houston, trailers were made by Boespflug Trailers in Dickinson.

The company has enough equipment for two crews, Rough said, adding a full fleet costs about $25 million.

The business was initiated by Triangle Petroleum Corp. of Denver to have its own fracking company to rely on, Rough said. He added the company wanted to hire reliable people to handle the business, but it wanted to make sure residents had an opportunity to be a part of the business before they looked out of state.

After being out of the state for about 21 years, Reeder local and RockPile operating manager Boyd Hofland said it is good to come home where his family is.

"It's such a golden opportunity," he said. "We have a lot to offer, a lot of job positions to be filled so it makes me feel very well that I can be a part of that."

RockPile hopes to give as many jobs as possible to residents of North Dakota.

While Mayor Dennis Johnson said it's great that the company is coming to Dickinson, it may have problems hiring employees.

"I think most companies coming in are trying to hire local and unfortunately we probably don't have enough local people to go around," he said.

Rough said the company will bring in more jobs and put money into the economy, but it wants to be more than a company that comes and runs a business.

"We actually want to be a participant," he said. "We hope to be in the rodeo this summer and have our equipment in there because the guys did that when they were younger."

RockPile wants to expand to five fleets in the Bakken Formation, Rough said, but doesn't want to move out of the area.

"That's where our home is, and we want to focus on this region," he said. "The Bakken has many years on it."
Memo: --- (c)2012 the Dickinson Press (Dickinson, N.D.)

IPAA Responds to Interior's Well Construction Regulations on Federal Lands

Targeted News Service (USA) - Saturday, May 12, 2012
WASHINGTON, May 4 -- The Independent Petroleum Association of America issued the following news release:

In response to the Department of Interior's release of the Bureau of Land Management's (BLM) proposed regulations regarding well construction and hydraulic fracturing on federal and tribal lands, IPAA President and CEO Barry Russell commented:

"America's independent oil and natural gas producers are already having a tough time obtaining permits to develop federal lands. BLM's proposed regulations, which would mandate one-size-fits-all regulations on well construction and hydraulic fracturing operations on these lands, are redundant. They will undoubtedly insert an unnecessary layer of rigidity into the permitting and development process.

"IPAA believes that BLM's decision to utilize FracFocus.org, the chemical registry website that has been crucial to strong state-based regulatory regimes is the appropriate choice, but the administration should recognize state success throughout the regulatory process and rely on it.

"America's public lands are extraordinarily diverse. State regulators understand the geographic and geologic differences of their states and have had a long and successful history in safely dealing with them. The federal government's role should be to further empower the states to continue their safe regulation of well construction and hydraulic fracturing ."

TNS cp -120512-JF78-3873730 StaffFurigay
Memo: Julia Bell, 202/857-4722, 800/433-2851, jbell@ipaa.org

Officials: No damage reported after earthquake

Daily Sentinel, The (Nacogdoches, TX) - Friday, May 11, 2012
Author: Paul Bryant pbryant@dailysentinel.com

No damage has been found to roads and bridges in parts of Nacogdoches County following Thursday’s earthquake near Timpson, officials said.

“We inspected all bridges on county and state highways and didn’t find any damage caused by the earthquake at all,” said Chuck Copeland, the commercial motor vehicle enforcement officer assigned to the county road and bridge department.

Texas Department of Transportation crews also inspected the same area and found no deficiencies, spokeswoman Kathi White said.

Residents reported pictures falling off walls and homes and businesses shaking at 10:15 a.m. Thursday, the same time the United States Geological Survey on its website said the quake, its epicenter two miles southwest of

Timpson, shook northern Nacogdoches and southern Shelby counties.

Reportedly, it could be felt in the Garrison, Appleby and Martinsville areas of Nacogdoches County. But Dr. Dan Burton, a professor and associate dean at Stephen F. Austin State University's College of Sciences and Mathematics, said in an email that some in Nacogdoches did experience "a rare event" for this area.

"Many SFA students, faculty, and Nacogdoches residents felt this tremor."

Burton said that Dr. Wesley Brown of SFA's Department of Geology, had reported people on upper floors "felt the quake because the swaying of the building created a greater amplitude of vibration on the higher floors."

He said the ground moved 0.6 centimeters east-west and north-south but moved "very little up and down. Those on the third floor of the science

building and math building felt the swaying, saw the ceiling tiles move, and heard the building creak. Some described it as feeling dizzy."

In Garrison, officials reported the quake "felt like a sonic boom," but reported no damage to the town's infrastructure. And at Garrison High School, students' State of Texas Assessment of Academic Readiness, or STAAR, testing was interrupted when pictures fell off walls and chairs rolled across floors.

On Friday, Sgt. Greg Sowell of the Nacogdoches Police Department said he had "nothing new" to report on possible quake damage, and Sheriff Thomas Kerss did not immediately return a message seeking comment.

Union Pacific Railroad officials did not respond to a request for comment on whether its rails here were affected.

And although residents were warned they should expect aftershocks, Brown said they would probably not exceed a 2 magnitude.

He said he could not determine whether hydraulic fracturing , or " fracking " — the process of drilling and injecting fluid into the ground at a high pressure to fracture shale rocks to release natural gas — caused Thursday's quake without more data.

The USGS acknowledges on its website that hydraulic fracturing can — and has — caused "minor" earthquakes.

According to the USGS, quakes have rattled the state since 1882. The largest was recorded on Aug. 16, 1931, near Valentine, where all buildings except wood-frame houses were damaged and brick chimneys toppled or damaged.

Earthquakes are typically caused by slips on faults. When tectonic plates, or huge slabs of solid rock, become "stuck" at their edges because of friction, the result is usually an earthquake. The closest fault to Timpson, Brown said, is at Mount Enterprise.

According to the Texas State Historical Association, between 1847 and 1994, more than 110 quakes of magnitude 3 or greater were recorded in Texas. None, the organization's website says, has ever exceeded a 6 magnitude.

The seismometer at the SFA Observatory is part of a global network of detectors organized by the USGS. The detector is underground far from traffic that would cause false readings.

Signals from the seismometer are transmitted wirelessly to a tower on Highway 259 at the SFA Beef Farm. The tower relays the signal to another tower to the SFA Science Research Center on Northwest

Loop 224 in Nacogdoches.

The signal is then transmitted to the SFA main campus and, finally, to the USGS. Live seismic traces can be viewed at www.observatory.sfasu.edu.

Midland College Petroleum Professional Development Center 5/13
Midland Reporter-Telegram (TX) - Wednesday, May 9, 2012
Author: Mella McEwen Midland Reporter-Telegram

PetroEd E Learning Courses: Introduction to Petroleum Industry (DIT) - Length 84 hours - Go to the

website www.midland.edu/ppdc for more information or call 432-683-2832.

Interior Secretary confident oil and gas development can move forward
Midland Reporter-Telegram (TX) - Wednesday, May 9, 2012
Author: Mella McEwen Midland Reporter-Telegram

ANDREWS COUNTY -- Standing at ConocoPhillips' well, Interior Secretary Ken Salazar stressed support for domestic oil and gas production while encouraging the industry to take steps to conserve local habitat.

Salazar was accompanied during his trip north of Goldsmith by Dan Ashe, U.S. Fish and Wildlife Service Director, who is under a court deadline to make a decision by mid-June on whether or not to list as endangered the dunes sagebrush lizard. Approximately 27 percent of the lizard's shinnery oak dunes habitat lies in West Texas, much of it in the region's most productive oil and gas counties.

Local residents and operators fear the listing will halt the oil and gas activity that has fueled the local economy and created thousands of jobs.

To those with these concerns, Salazar said, "Be not afraid. I feel we will be able to find common ground and support domestic production while keeping up with our core value of conservation."

He pointed to an agreement he signed earlier this week in Utah that will allow Anadarko Petroleum to drill up to 3,675 natural gas wells in eastern Utah while agreeing not to drill along the high cliffs of the White River and buying private land along the river for conservation.

Salazar said he and Ashe came to the Permian Basin for a "first-hand view of what's happening with oil and gas operations and conservation." He noted that 95 percent of the lizard's shinnery oak habitat in New Mexico was enrolled in conservation agreements. "We want Texas to have the same opportunity," he said. About 70 percent of the lizard's habitat in Texas has been enrolled since the conservation plan was announced in February.

ConocoPhillips employees gave the officials a tour of the well site, demonstrating a sucker rod and turning on the pumping unit. Bill Patterson, ConocoPhillips' general manager of its Mid-Continent Business Unit, explained the well averaged 11 barrels of oil and 50 barrels of water a day and was completed using hydraulic fracturing technology.

Hydraulic fracturing required 2 million to 5 million gallons of water, Patterson said. "(That's) enough for 24 households for a year," he said. "But this well will produce enough energy to heat 1,500 homes for 20 years, so that's the trade-off. We are taking steps to minimize our footprint, we are making efforts to reuse produced water and lessen our impact on the environment."

Jim Benson, executive director of University Lands, which owns the property on which the well sits, described to Salazar and Ashe how University Lands manages its properties, employing staff who ensure they are kept clean and teams who help manage wildlife.

ConocoPhillips has enrolled its lands in the conservation plan to ensure its operations can continue whether or not the dunes sagebrush lizard is listed as endangered, Patterson said. The company believes

the plan protects its right to develop and explore on its leases while protecting the lizard's habitat, he said.

Land Commissioner Jerry Patterson compared the plan to a man accused of murder who pleads guilty to manslaughter even though he knows he's innocent. Patterson and other officials, such as Railroad Commission Chairman Barry Smitherman, criticized the need for such an agreement, saying it was driven by a legal settlement with a non-governmental organization.

Ben Shepperd, president of the Permian Basin Petroleum Association, was not present for Salazar's visit. He did comment on Wednesday: "I have no problem with the theory of conservation plans when sound science supports a need. In this case, reputable science clearly indicates a conservation plan is uncalled for. The research finds resoundingly that the dunes sagebrush lizard is not threatened or endangered.

"The federal government came to the Permian Basin today to dangle a carrot. We will not list the lizard as endangered if you will cede private and state lands to federal control.

"I'd like to remind the U.S. Interior Department of our Texas history. After annexation, the Compromise of 1850 allowed Texas to keep as her own the land inside the state boundary. We knew then what we still know today. It's non-negotiable that Texas -- not the federal government -- retains jurisdiction over her oil-rich lands.

"The production from the Permian Basin fuels America. I see no need to surrender part of Texas to an administration in Washington D.C. that has shown only contempt for the oil it contains."

Asked about criticism of the plan by some operators and state officials, Bill Patterson said no agreement is perfect but that his company believes the plan protects Conoco's right to develop and explore on its leases while protecting the lizard's habitat.

Eileen Dey, ConocoPhillips' regulatory manager, said participation in the conservation plan "may preclude listing the species."

"That's what everyone wants, but this is an insurance policy," she said. "We committed ahead of time and will continue with our conservation efforts. If it's listed, they can't add more restrictions."

The conservation plan can require the company to avoid the lizard's habitat, Bill Patterson said. Depending on the actual drilling location, having to move that location could cost the company as much as $200,000.

"The idea that we can continue to drill is essential for us," he said.

If enough landholders enroll in an agreement, it may allow the Fish and Wildlife Service to conclude an endangered listing for the lizard is not needed, Ashe said. But, he said the service is under a court order to make a decision by mid-June. He added that he feels the proposal for listing the lizard was justified. He is confident there is a good understanding of the science and that the lizard's habitat has been lost to oil and gas operations, herbicides and fragmentation.

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"We see here how it can be done, producing energy that powers the economy yet also preserving a little lizard. We certainly have our challenges, but I'm optimistic," Ashe said.

The area is facing other possible listings, Ashe said, referring to the lesser prairie chicken. "I think partnerships like we have here will help avoid those conflicts," he said. "When I was listening to the presentation about how ConocoPhillips is able to monitor its wells and adapt to changing conditions, so it

is with the sand dune lizard and other species. If you take care of the habitat, watch and adapt, you can continue oil and gas activity."

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Mella McEwen can be reached at mmcewen@mrt.com.

Plains All-American investing millions to move Permian Basin crude to market
Midland Reporter-Telegram (TX) - Wednesday, May 9, 2012
Author: Mella McEwen Midland Reporter-Telegram

Plains All-American Pipeline may have 16,000 miles of pipeline criss-crossing the nation and into Canada, but the Permian Basin remains a major asset area.

"The Permian Basin is where we started the company" about 20 years ago, said Greg Armstrong, chairman and chief executive officer as he, accompanied by other senior executives, came to Midland to be honored by the Midland Wildcat Committee.

"We are very active in the Permian Basin, but the good news is it doesn't stop there," Armstrong said, listing assets in the Eagle Ford, Bakken, even Oklahoma and Kansas. "But nothing on the magnitude of the Permian Basin.

Among its Permian Basin assets are the Basin Pipeline, which now moves 495,000 barrels of oil a day. Armstrong noted that when the company purchased the pipeline in 2002, it was moving between 160,000 and 180,m000 barrels a day. The company is also working with Sunoco, its partner in the Mesa Pipeline, to ensure it has sufficient capacity.

The company, he said, is in the process of finishing or beginning $350 million in projects - pipeline gathering systems to connect new areas like the Bone Spring to the main system or adding new lines in established areas. A pipeline was just purchased from Western Refining to connect to its main pipeline.

"The design is to connect activity in the Permian Basin and also provide takeaway," Armstrong explained.

Expansion of the Basin pipeline is about 90 percent complete, he said, and will add 50,000 barrels of takeaway capacity to take to Cushing.

Armstrong has reached production in the Permian Basin increase to about 1 million barrels a day and "it's not inconceivable production could go up another 60 or 70 percent to 1.7 or 1.8 million barrels, even 2 million barrels," he said. It was that rise in production that spurred Plains, and other pipelines, to invest huge sums in expansion. About 10 years ago as drilling increased and wells were completed in the Wolfberry, he said, the excess capacity in area pipelines was quickly reached and pipelines realized "this was not a short-term issue." The growth is driven by technology, from horizontal drilling to multi-stage fracturing and gives him confidence that the investment Plains is making in its expansion is well-spent.

Already he is looking at additional projects incremental to the expansion already underway that could mean another $350 to $500 million in investment, bringing the total to almost $1 billion.

"We're trying to avoid having the Permian Basin become congested" as Cushing, Oklahoma currently is, he said, which would mean the price differentials between West Texas Intermediate and Brent and the similar Louisiana Light would be even wider.

The company is also engaged in first purchaser activity, buying oil at the well. Armstrong said Plains buys about 900,000 barrels a day, about a third - between 250,000 and 300,000 barrels - in West Texas.

"Producers in the Permian Basin are very good about sharing their plans with us and that lets us right-size our operations," he said. New areas, he added, are less transparent.

"A lot of eyes, including ours, are on the Utica shale," he said. "It's truly a green field - there's not much production but a lot of potential. The characteristics are similar to the Eagle Ford. There's just not a lot of infrastructure in place. The challenge is, when it develops, making sure there's takeaway capacity. In the Permian Basin there was the backbone of a pipeline system, in the Eagle Ford there was a skeleton of a pipeline system but in the Utica it truly is a green field."

Mella McEwen can be reached at mmcewen@mrt.com.

Vermont to approve first statewide fracking ban

Pike County Courier, The (Dingman-Milford, PA) - Wednesday, May 9, 2012
MONTPELIER, Vt. -- Vermont this week appeared on the verge of enacting the nation's first statewide ban of a hotly debated natural gas drilling technique called hydraulic fracturing .

The Associated Press reported that the state House on Friday overwhelmingly approved a conference committee report calling for the ban. It now goes to the desk of Democratic Gov. Peter Shumlin, who has said he takes a dim view of hydraulic fracturing and is expected to sign the measure.

"We don't want to be shooting chemicals into our groundwater in pursuit of gas that does not exist," Shumlin said after the House gave final passage to the ban on a vote of 103-36.

The hydraulic fracturing process involves a high-pressure mix of water and chemicals being forced into the ground to fracture layers of shale and allow the gas to be released. Environmentalists say the chemicals are a threat to the environment and public health. They also complain that drilling companies haven't fully disclosed what chemicals are being used.

The American Petroleum Institute called Vermont's bill "shortsighted and uninformed."

"The decision by the Vermont Legislature to pass a statewide ban on hydraulic fracturing follows an irresponsible path that ignores three major needs: jobs, government revenue and energy security," said Rolf Hanson, API's director of state government relations.

The action in Vermont came the same day President Barack Obama's administration issued new rules governing hydraulic fracturing , or fracking , on public lands. The rules set new requirements for publicly disclosing the chemicals being used _ after drilling operations are completed _ and implement new air and water quality protections. Also Friday, the Environmental Protection Agency issued a nonbinding guidance describing cautions to be taken by gas drillers who inject diesel fuel during the hydraulic fracturing process.

New Jersey lawmakers passed a ban last year but settled for a one-year moratorium on hydraulic fracturing after Republican Gov. Chris Christie vetoed the permanent ban.

-- Dave Gram

Fracking Rules an Improvement but Could be Better

Targeted News Service (USA) - Wednesday, May 9, 2012
WASHINGTON, May 4 -- The Wilderness Society issued the following news release:

A proposal (http://www.blm.gov/wo/st/en/info/newsroom/2012/may/NR_05_04_2012.html) announced by the Bureau of Land Management (BLM) will improve key safety issues with hydraulic fracturing , but leaves communities in the dark about toxic chemicals in " fracking " fluids.

The new rules could have provided better information to the public about the toxic chemicals used in hydraulic fracturing operations conducted on thousands of drilling sites on western public lands every year. However, the proposal does not require disclosure until after a well is "fracked." As a result,

residents of western communities near wells on federal lands may not know whether they are at risk from toxic contamination.

"With more than 90% of natural gas wells using hydraulic fracturing technologies, the public is entitled to know what kind of chemicals are going into and coming out of the ground as the oil and gas industry seeks out more and more areas for drilling," said Dave Alberswerth (http://wilderness.org/about-us/experts/david-alberswerth), senior policy advisor at The Wilderness Society. "This new rule inexplicably shields that information from the public until after the fracturing is completed. It's perplexing -- Why not require the disclosure of these chemical substances and their volumes up front - before the operations take place?"

The new rules do include improved safety requirements in several key areas. In particular, the rules require that there are appropriate plans to dispose of fracking fluids that come back up from a well that is hydraulically fractured. Uniform well construction standards will also help ensure that public lands and waters are safe from fracking contamination.

The Wilderness Society has been urging a policy of "doing it right" when it comes to oil and gas drilling on public lands. Doing it Right (http://wilderness.org/files/Doing-it-Right-Policy-brief-update-Winter-2011.pdf) in places like Rio Blanco County, CO is imperative. The BLM's White River Field Office (http://www.blm.gov/co/st/en/fo/wrfo.html) in Rio Blanco County oversees millions of acres leased for oil and gas drilling in the White River region of Northwestern Colorado. The White River is also home to world class trout fishing and the area hosts high quality big game species that draw people to the region from around the country for an unparalleled hunting experience. At the same time, this part of the Piceance Basin (http://geosurvey.state.co.us/apps/wateratlas/chapter6_2page1.asp) has sought-after oil and gas resources, with tens of thousands of new wells expected over the next 20 years.

"Rio Blanco County is an example of communities across the West that benefit from figuring out how we develop oil and gas before we move forward and see irreparable damage to water, wildlife habitat and outdoor opportunities," said Soren Jespersen (http://wilderness.org/about-us/experts/soren-jespersen), Northwest Colorado wildlands coordinator at The Wilderness Society. "Now is the time to get it right. We can continue to see Colorado be a leader in backcountry recreation, with billions of dollars flowing into the West from those who love to fish and hunt on our lands, by looking at the region in a broader scale and driving development to less sensitive lands."

Conservation groups like The Wilderness Society have encouraged the BLM to not only take a look at what drillers are putting into the ground, but also to adopt Master Leasing Plans (http://www.blm.gov/pgdata/etc/medialib/blm/wo/MINERALS__REALTY__AND_RESOURCE_PROTECTION_/energy/leasing_reform.Par.54947.File.dat/Leasing_Reform_05-11-2011.pdf) in the region that would give the agency a way to plan where, when and how oil and gas development occurs while also protecting the area's important wilderness, wildlife and water. Regulation of hydraulic fracturing will provide another important piece in this vision for planning ahead and doing it right.

"Part of Doing it Right is closing the loopholes in federal laws protecting drinking water and surface water quality to ensure public disclosure of chemical compounds used in drilling is required," said Alberswerth. "Disclosure is one piece of the puzzle. We also need to see the agencies responsible for managing our lands taking a smarter approach to development that includes looking at the broader landscape when making leasing decisions, not one parcel and lease sale at a time."

Resources

Doing It Right Science & Policy Brief:
http://wilderness.org/files/Doing-it-Right-Policy-brief-update-Winter-2011.pdf

TNS cp -120510-JF78-3868571 StaffFurigay
Memo: David Alberswerth, Senior Policy Advisor, 202/429-2695, dave_alberswerth@tws.org

Administration's New Fracking Regulations Send Mixed Messages

Targeted News Service (USA) - Tuesday, May 8, 2012
WASHINGTON, May 4 -- The National Association of Manufacturers issued the following news release:

National Association of Manufacturers (NAM) President and CEO Jay Timmons issued the following statement on the proposed Bureau of Land Management hydraulic fracturing regulations on federal lands:

"Manufacturers are scratching their heads, curious why the Administration's actions do not match their words on the potential of shale gas. White House officials previously indicated that they understood the game-changing opportunity for manufacturers and the potential to create 1 million manufacturing jobs, but it's clear they don't truly get it. The new regulations out of the Administration today will unnecessarily slow down an affordable source that is driving growth.

The states are already effectively regulating hydraulic fracturing . New federal rules will be confusing and duplicative and will add unnecessary regulatory burden for energy producers. Shale development has a tremendous upside for manufacturers, the 12 million people who work directly in U.S. manufacturing and our entire economy. It's time the Administration's actions reflect its rhetoric so that we can begin to include shale development as an essential part of a real all-of-the-above energy strategy. We urge the Department of Interior to carefully reconsider these proposed regulations and the impact on such a vital industry."
TNS mv45 120508-3866349
Memo: Matthew Lavoie, 202/637-3085

Chesapeake reports progress in wet gas window of Utica shale play
Oil & Gas Journal 05/02/2012
http://www.ogj.com/articles/2012/05/chesapeake-reports-progress-in-wet-gas-window-of-utica-shale-play.html?cmpid=EnlDrillingMay142012
Chesapeake Energy Corp. outlined its drilling progress in the Utica shale in eastern Ohio, western Pennsylvania, and northwestern West Virginia during a May 1 earnings call in which the company stressed that it is shifting its focus from natural gas toward liquids-rich plays.

EPA: Susquehanna County village's well water is safe
Erie Times-News (PA) - Saturday, May 12, 2012
Author: ASSOCIATED PRESS

ALLENTOWN -- Federal environmental regulators said that testing of scores of drinking-water wells in a northeastern Pennsylvania village has failed to turn up unsafe levels of contamination. The test results provided ammunition to a gas driller that denies it polluted the aquifer with hazardous chemicals while prompting accusations the government is distorting the data.

The U.S. Environmental Protection Agency released results for 12 homes on Friday and said the results "did not show levels of contaminants that would give EPA reason to take further action." It was the fourth and final release of data for homes in Dimock, a rural Susquehanna County community that's found itself in the middle of a passionate debate over the safety of drilling and hydraulic fracturing , or fracking , in deep rock formations like the Marcellus Shale.

The EPA testing is only a snapshot of the highly changeable aquifer and will not be the final word on the health of the water supply. But pro-industry groups and Cabot Oil & Gas Corp., the Houston-based driller whose faulty gas wells were previously found to have leaked methane into the aquifer, assert the test results justify their position that Dimock's water is safe.

"Cabot is pleased that EPA has now reached the same conclusion of Cabot and state and local authorities resulting from the collection of more than 10,000 pages of hard data -- that the water in Dimock meets all regulatory standards," spokesman George Stark said Friday.

But residents who are suing Cabot and anti-drilling activists say the EPA has issued a series of misleading statements on what the tests show. They say some of the wells had a combination of

chemicals, metals, gases and salts that suggest the influence of drilling and fracking ; that drinking-water standards have not been established for some of the toxic substances that turned up in the wells; and that testing also revealed high and sometimes explosive levels of methane in about a third of the wells. Opponents also raised technical concerns about the data.

"The fact remains, EPA's own tests have already vindicated the long-standing allegations of water contamination and clearly shows that the water of the affected residents is unfit for human consumption," said Claire Sandberg, executive director of Water Defense, an anti-drilling organization.

Caption: FILE PHOTO/Associated Press Dan Jacobsen, left, and Joel Munson, of TechLaw, contractors for the Environmental Protection Agency, conduct a field screening of a homeowner's water in Dimock on Feb. 13.

Occupiers protest fracking near Ranchers Exploration Partners in Greeley
Greeley Tribune (CO) - Saturday, May 12, 2012
Author: Meagan Birely, Greeley Tribune, Colo.

May 12--With a light drizzle falling on their heads, 15 people stood on a wet corner near an oil drilling company Friday to protest the way oil companies are using water beneath the fields of Weld County. They held signs to passing cars that read "Can't drink oil or money," "Ban fracking " and "Stop fracking now."

Occupiers from Greeley, Fort Collins and Denver gathered at the corner of 4th Street and 71st Avenue to protest hydraulic fracturing , which involves blasting water, sand and chemicals into rock formations to free oil and natural gas, down the street from Ranchers Exploration Partners.

The company was given a cease-and-desist order April 27 in connection with its drilling at a landfill in Windsor. The order stated that Ranchers' drilling through the landfill and base layers had the potential to cause groundwater contamination. The Greeley office was closed Friday with a note on the door that said workers would return Monday.

"I'd like to think we had something to do with that," said protester Ron Peterson of Greeley. "I'm not an expert by any means on fracking , but it doesn't make sense to drill in a landfill. We're here to let the company know that we know what they are up to."

Peterson, who also said he has read studies and research about fracking , took a half day off of work to join the protest.

"This is the planet I live on," he said. "I have to do what I can to protect it. I know enough about (fracking) to know it's unsafe."

Holding her sign that read "No drill no spill," Trish Smith of Greeley said she is a two-time cancer survivor and has concerns that carcinogens could wind up in water.

"I don't want anyone to go through what I went through," Smith said. "We are poisoning the future."

She said that considering the rain and the fact that it was a work day, the turnout of protesters was spectacular.

"Sometimes you have to bear a little discomfort to get the important message across," she said.

Janet Wilson attended an Occupy meeting Nov. 4. She said she caught the buzz and bought an RV. She started Occupy the Roads and has been to 88 cities visiting Occupy events. Wilson said in her traveling, fracking has been a hot topic in several areas, including Texas.

"I don't think there is any accountability," Wilson said. "Twenty years from now, they may find out all this stuff about fracking and it will be too late. ... Corporations should not be unliable. If in 20 years they find out it causes cancer, they should go to jail. Would they still frack? We need accountability."

Memo: --- (c)2012 the Greeley Tribune (Greeley, Colo.)

Fed drilling plan not proactive

Times Leader, The (Wilkes Barre, PA) - Saturday, May 12, 2012
THE OBAMA administration's proposed rule for hydraulic oil and gas drilling on public lands is the equivalent of closing the barn door after the horses have escaped.

The Interior Department issued a proposal last week that calls for companies to disclose the chemicals used in extracting gas and oil from shale deposits deep underground. The problem is, unlike an earlier plan that would have required them to release the information at least 30 days before starting a well, the new provision says the contents of the fracking fluid - water, sand and chemicals - don't have to be divulged until after drilling is over.

That's hardly proactive.

But the Obama administration, under criticism from Republicans and industry officials for the president's energy policies, bowed to drillers' objections. They said the additional paperwork would slow the permitting process and could jeopardize trade secrets. It decided scientists would be able to use the records to trace any future contamination after the fact, and that there was no reason to require disclosure in advance of drilling.

The federal rule would apply only to 3,000 or so wells drilled each year on 700 million acres of public land administered by the Interior Department's Bureau of Land Management and another 56 million acres of Indian land. Regulation of drilling on private land - the majority of the 13,000 wells drilled each year - falls to the states, and some already require prior disclosure of fracking chemicals.

The rule for public lands should be at least as stringent as those being imposed by states. </
Memo: Pittsburgh Post-Gazette

PRPA reps explain benefits of surplus water leasing to Estes Park board

Estes Park Trail-Gazette (CO) - Friday, May 11, 2012
Author: Juley Harvey Trail-Gazette

Potential economic development decisions involving water leasing of Platte River Power Authority (PRPA) water to the oil industry are on the horizon for Estes Park, PRPA representatives told town officials at the town board study session Tuesday at town hall.

Discussions concerning the water leasing issues will come before the town board at their May 22 meeting. Public comment will be taken then, but there will be no specific public hearing. The PRPA board, on which Estes Park mayor Bill Pinkham has a seat, is expected to make a decision on the issues at the end of the month, and Pinkham and utilities director Reuben Bergsten were seeking information and direction from the trustees on the water leasing issue.

The PRPA is a non-profit organization owned by Estes Park, Fort Collins, Longmont and Loveland.

An opportunity for economic development includes the PRPA leasing its surplus water to the oil and gas industry, for fracking . The benefit is to help reduce future electric rate pressures from PRPA, among others.Bergsten said fracking is not new to Colorado, and that horizontal drilling and technological improvements in fracking have made viable solutions for the production of oil from shale layers. Fracturing (fracking) requires the use of water combined with chemicals, and after the process is completed, most of the water is discharged into deep wells. PRPA said the benefits from the development of this resource will reduce future electric rate pressures, reduce dependency on foreign energy, reduce future natural gas rate pressures by increasing the supply and financially support the Central Colorado Water Conservancy District (see the website at ccwcb.org).

He noted that the water aquifers are located at about the first 1,000 feet, with fracking wells drilled to about 7,000 feet. In Colorado, a thick layer of impermeable shale exists at about 4,000 feet, separating

the aquifers from the drilling. During the construction of the wells, he said, the process is highly regulated on the state level, and Colorado has some of the toughest regulations in the country, Bergstrom said. A cement casing seals off the shallow water aquifer, ensuring the oil only goes up through the well pipe.

Once the well is drilled and the horizontal is in place, a mixture of 99-percent water, one-half-percent sand and one-half-percent chemicals is pumped, with the water and sand migrating up through the fracture and holding it open, he said.

Fracking creates small cracks, or fractures, in underground geological formations to allow oil and natural gas to flow into the wellbore and increase production. Special proprietary fluids are injected at high pressure down the well, with as much as 80 percent of the injected water returning to the surface, and 20 percent of the injected water treated and disposed of, using such means as deep underground permitted injection wells and evaporation from lined pits.

Federal regulators issued first-ever air pollution rules for fracking wells in April, requiring drillers to burn or capture the gas and smog-producing compounds released when the wells are first tapped. Colorado and Wyoming are the first states to begin compliance.

Pinkham said that, contrary to news reports, supplying the surplus PRPA water for fracking does not produce a shortage for agriculture and actually creates a win/win situation for both the oil and agriculture industries. PRPA representatives also said that, if PRPA doesn't agree to lease the surplus water to the oil industry, it will find another supplier.

Koenig asked how the chemicals are handled. Representatives said it is done according to regulations. Norris asked about Estes Park's liability, in case something goes wrong. Attorney Greg White assured officials there is no liability. Platte River's water is a separate entity, and the liability rests with them, he said. There is no implied liability for Estes Park, he reiterated.

Norris insisted that he doesn't know what all the chemicals are and he needs to be satisfied how they are going into and out of the ground properly and that they don't go somewhere they shouldn't. There were a lot of regulations for the Deepwater Horizon drilling, too, he pointed out, yet that operation went horribly wrong. He also said he's uneasy about trusting the regulators to ensure the monitoring.

Blackhurst argued the PRPA is not in the fracking monitoring business and it's up to the regulators to make sure proper precautions are taken. What the PRPA is asking for is the use of the water. That is a good idea for the taxpayers, benefits the agricultural community and is a no-brainer, he said. If the surplus water is just spilled, with no buyer, it benefits nobody, he said.

"It's not about fracturing," Blackhurst said. "It's about (leasing) the water."

Pinkham said if the matter were purely a financial issue, it would be a "no-brainer." However, he added there is the issue of public perception and misunderstanding of fracking .

PRPA representatives said that even in Loveland, where the city council originally supported the issue, council members are considering a moratorium on oil and gas leases, in order to develop their own regulations concerning fracking .

Koenig asked Paul Newendorp, an expert on the oil industry, who was attending the work session, to explain fracking further. He said horizontal wells are being drilled in Colorado, and the amount of fracking fluid per well equals about 1 million gallons or more. Many chemicals are injected into the ground with the water. State law requires a list of those chemicals to be posted at the wellhead -- except for the "proprietary" ones. The shale is cracked open by the mixture of sand and water. It is dense. That is the reason the oil industry ignored the fracking process for so long, he said, because you can't do it, unless you crack up over a long lateral. The whole effort is to get the sand down into the right place in the lateral, then release the pressure, and the sand cracks the shale.

One of the problems with the chemicals, Newendorp said, is that they thicken and act like coagulants.

You have to put the chemicals in, to make the "gravy," and they have to be such that they don't lose effectiveness at higher temperatures. He said he looked at a list of chemicals used for thickening and there were about two dozen of which he'd never heard. Once the pressure is released, about 75 percent of the water flows back up to the surface. The operators of the wells are required by law to certify this water is disposed of properly, often trucked away in drums. Where and how the water is treated may remain a mystery -- once the water is trucked away, the well operators have done their part legally, Newendorp said. Some water has been dumped in rivers in places such as Appalachia, and that's where the public concern comes up, he said.

Norris noted that while the water leasing idea seems favorable economically, the trustees need to know how well the whole system works, including the regulatory disposal of water. Blackhurst insisted this is only an economic decision about water and the trustees are not experts on fracking . Koenig observed there are moral and ethical issues involved. If the process is unsafe for the environment, it goes against what the town board is for, she said. What is left behind, after you pick up the money, she asked.
Caption: Photo: A representative of the Colorado Water Conservancy District explains to the town board at the work session why the leasing of PRPA surplus water to the oil industry is a good idea, showing a slide of the depths of a well for fracking .
Photo: Town board members and staff hear about PRPA water leasing to the oil industry to use for fracking at Tuesday's town board work session.

Hydrofracking Moratorium Discussion In Fairfield Scheduled
Evening Times, The (Little Falls, NY) - Friday, May 11, 2012
FAIRFIELD - A public information session concerning a moratorium on hydraulic fracturing will take place on Wednesday, May 16, according to a news release.
Speaker David Slottje, senior attorney at the Community Environmental Defense Council, will be discussing the availability of local government land use authority to safeguard health, safety and community assets from the impacts of hydrofracking .

The town scheduled the session to take place at 6:30 on May 16 at the West Canada Central School auditorium on Route 28 in Newport.

While some of the town council may be present, no official business will be conducted.

House Science, Space, and Technology Subcommittee on Energy and Environment Hearing - "Supporting American Jobs and the Economy through Expanded Energy Production : Challenges and Opportunities of Unconventional Resources Technology ."
Government Press Releases (USA) - Friday, May 11, 2012
Chairman Harris, Ranking Member Miller, and members of the Subcommittee, I appreciate the opportunity to discuss the role that the Department of Energy's Office of Fossil Energy continues to play in the safe and responsible development of the Nation's unconventional fossil resources.

As you know, in March 2011, the President laid out a specific goal for our Nation: to reduce imports of oil by a third over the next 10 years. This is a goal that we can and must achieve. Reducing our imports will reduce our vulnerability to international oil prices, and create new jobs. And the development of all sources of American energy - including unconventional oil and gas - will support this goal.

In fact, we are already making progress. Since 2008, U.S. oil and natural gas production has increased each year. In 2011, U.S. crude oil production reached its highest level in eight years. Natural gas production grew in 2011 as well - the largest year-over-year volumetric increase in history. Overall, oil imports have been falling since 2005, and our dependence on imported oil declined from 57 percent in 2008 to 45 percent in 2011 - the lowest level since 1995.

Challenges and Opportunities

The safe and responsible development of unconventional domestic natural gas resources production creates jobs and provides economic benefits to the entire domestic production supply chain, as well as to chemical and other manufacturers, who benefit from lower feedstock and energy costs. By helping to

power our transportation system, greater use of natural gas can also reduce our dependence on oil. And with appropriate safeguards, natural gas can provide a cleaner source of energy than other fossil fuels. For these reasons, it is vital that we utilize our unconventional natural gas resources, while giving American families and communities confidence that natural and cultural resources, air and water quality, and public health and safety will not be compromised.

Indeed, this is a period of great opportunity for the prudent development of our Nation's oil and gas resources. Expanding production of American energy resources is a key part of President Obama's all-of-the-above energy strategy that includes renewables, nuclear and fossil resources. But to get these benefits we're going to have to do this right.

Proposed Research

As the United States continues to expand domestic natural gas and oil production, it is critical that the public have full confidence that the right safety and environmental protections are in place - guided by the best available science.

Historically, the Department of Energy has played a critical role in the development of technologies that have enabled the Nation to expand development of our energy resources. In fact, between 1978 and 1992, public research investments managed by the Department led to the breakthroughs in hydraulic fracturing and extended horizontal laterals that spurred private sector investments and industry innovation, unlocking billions of dollars in economic activity associated with shale gas. As the President noted in his State of the Union address and as others in industry as well as academia have confirmed, the domestic shale gas boom we see today demonstrates that government support can be critical in helping businesses get new energy ideas off the ground.

Today, we apply that lesson to other nascent technologies like wind and solar, and, within my office, to clean coal and other sources of clean domestic energy. For example, to support the economics of carbon capture and storage (CCS) technology - which captures CO2 from industrial facilities and power plants; compresses it to liquid form; transports it to an appropriate location; and then injects it into suitable geological formations for permanent storage underground - we are exploring ways to use the off-take from CCS projects to be treated as an asset instead of waste. To this end, the Department is including enhanced oil recovery utilizing carbon dioxide (CO2-EOR) in its portfolio of CCS projects. Geologically complex oil reservoirs with large volumes of residual oil will benefit the most from next generation technology. DOE's role here is to move forward on the goals of the carbon capture program for lowering the cost of capture and continue to develop the technology and methods to measure, monitor, and verify that the carbon is sequestered in place. The fact that these projects can be done at lower cost makes them more attractive to the program, and related work on saline aquifers will continue.

Of course, just as we continue to support public research to explore new opportunities, we must address the technical challenges that remain with the resources being developed today. For instance, concerns about how to safely and prudently develop unconventional shale gas and tight oil resources have received a great deal of attention, and the Department, in collaboration with other Federal agencies, will conduct research to address those concerns and will quantify the risks inherent in the production of these resources. By doing so, we can help ensure that subsequent regulations at the State and Federal levels, as well as voluntary action by industry, will effectively mitigate the risks that have been scientifically quantified.

On April 13, 2012, the President signed an Executive Order creating a new Interagency Working Group to Support Safe and Responsible Development of Unconventional Domestic Natural Gas Resources. On the same day DOE, the Environmental Protection Agency, and the Department of the Interior's U.S. Geological Survey signed a related Memorandum of Agreement initiating a Multi-Agency Collaboration on Unconventional Oil and Gas Research.

FE's Natural Gas Technologies Program will be refocused to carry out this R&D initiative. The objective of this collaborative effort is to better understand and address the potential environmental, health, and safety impacts of natural gas development through hydraulic fracturing . Through the collaboration, a robust

Federal R&D plan will be developed, taking into account the recommendations of the Secretary of Energy Advisory Board (SEAB) Natural Gas Subcommittee. DOE's role in this initiative will focus on priorities identified by the interagency collaboration in a research plan to be formed over the next nine months within its area of core research competencies, including wellbore integrity, flow and control; green technologies; and systems engineering, imaging and materials. While this R&D is focused on addressing issues surrounding shale gas, many of the environmental mitigation efforts we are pursuing are also applicable to the growing shale oil production.

DOE Capabilities and Expertise

Practices employed by companies engaging in exploration and production evolve rapidly. An understanding of these technologies and practices is critical if the Federal Government is to accurately quantify the risks of these activities. DOE has research experience and capabilities in drilling, production, and environmentally sustainable technologies, as well as imaging, materials, earth science and engineering.

DOE capabilities include experience and expertise in quantifying, evaluating and mitigating potential risks resulting from the production and development of the shale gas resources, to include multi-phase flow in wells and reservoirs, well control, casing, cementing, drilling fluids, and abandonment operations. DOE has experience in evaluating seal-integrity and wellbore-integrity characteristics in the context of protection of groundwater.

DOE has experience and expertise in the development of a wide range of new technologies and processes that reduce the environmental impact of exploration and production, such as flowback water treatment processes and water filtration technologies. Data from these research activities assists regulatory agencies in making a science-based cost-benefit analysis of requiring producers to adopt new technologies to mitigate environmental risks.

DOE specializes in the development of complex engineered systems, high speed computing and predictive modeling, and has experience in quantifying and mitigating low-frequency, high-impact risks. This includes evaluating human factors that potentially contribute to failures. DOE has developed and evaluated novel imaging technologies for aerial magnetic surveys for the detection of unmarked abandoned wells, and for detecting and measuring fugitive methane emissions from exploration, production, and transportation facilities.

DOE also has experience in understanding fundamental interactions caused during the drilling process, such as the "equation of state" research that investigates the relationship between pressure, temperature, and viscosity of multi-phase fluids at the high temperatures and pressures associated with deep drilling and hydraulic fracturing . DOE's experience in engineered underground containment systems for CO2 storage brings capabilities that are relevant to the challenges of safe shale gas production, such as evaluating cement-casing integrity in corrosive environments.

Conclusion

The Department of Energy is committed to developing the science and technology that will allow the Nation to use its abundant fossil energy resources in a way that balances the energy needs for sustaining a robust economy with continued environmental responsibility. As we move forward on a multi-agency, collaborative research program with DOI and EPA into understanding and minimizing the unwanted consequences of unconventional fossil resource development, the Office of Fossil Energy will pursue its mission with the same commitment to excellence and innovation.

Mr. Chairman, this completes my prepared statement. I would be happy to answer any questions you or other members of the committee may have at this time.

Republicans Question Administration's Commitment to Producing Vast U.S. Unconventional Oil & Gas Resources - President Obama's "All of the Above" Rhetoric Does Not Match Anti-Energy Actions

Government Press Releases (USA) - Friday, May 11, 2012

Washington D.C. - Today, the Subcommittee on Energy and Environment held a hearing to examine challenges and opportunities associated with expanding development and use of unconventional oil and gas production technologies. The hearing continued the Science, Space, and Technology Committee's ongoing efforts to consider key components of a true "all of the above" energy strategy.

Subcommittee Chairman Andy Harris (R-MD) said that "The Green River Basin, located in Colorado, Utah, and Wyoming, may contain up to three trillion barrels of oil--more potential oil than the rest of the world's current oil reserves combined." Harris said that "If this energy--which is overwhelmingly on Federal lands--is made available, I am confident American ingenuity will find ways to responsibly explore and produce this resource."

The International Energy Agency (IEA) projects conventional crude oil production will significantly decline in the coming decades. In order to meet projected global demand for energy, the world will need to expand production of unconventional oil, natural gas liquids, biofuels, and other substitutes.

However, the Administration's fiscal year 2013 budget request for the Department of Energy (DOE) proposes to eliminate almost all oil and gas research and development (R&D). Republicans today repeatedly questioned the Administration's anti-fossil fuel actions against the backdrop of President Obama's stated goal in his most recent State of the Union address to pursue an "all of the above" approach to energy.

Chairman Harris specifically asked Mr. Charles McConnell, DOE's Assistant Secretary for Fossil Energy, whether oil shale and oil sands are part of the President's "all of the above" strategy. Mr. McConnell stated that both resource bases are part of the President's energy mix, but later acknowledged that the Administration does not request funding to advance production technologies. [Watch the video HERE http://youtu.be/q3XEXUnNyQw]

Harris said: "It's disturbing that the Administration claims these vast resources are part of the President's approach, when in fact the budget provides no support for their development. This further confirms the President's 'all of the above' rhetoric is hollow and misleading, if not downright false."

Full Committee Chairman Ralph Hall (R-TX) raised similar concerns with respect to the Administration's support for shale gas production. "I would just note for the record that in his State of the Union speech, the President said 'it was public research dollars...that helped develop the technologies to extract all this natural gas out of shale rock.' It is troubling that he is suggesting the Federal government made hydraulic fracturing possible while at the same time trying to kill R&D within the same program that he says deserves credit for the current oil and gas boom," Hall said.

Ms. Samantha Mary Julian, the Director of Utah's Office of Energy Development, today highlighted the State's efforts to develop its unconventional energy, noting "Despite the lack of efforts of some federal agencies, the unconventional energy industry is alive and growing in Utah." Ms. Julian praised the benefits of expanded unconventional energy development on employment and education. "Utah actively manages its lands to promote the responsible development of its energy resources as it produces the main source of funding for our schools," Julian said. "Simply put, Utah educators and students depend on responsible energy development."

It is currently projected that American oil shale resources could yield an estimated 800 billion barrels of oil. Witnesses today stressed that continued advances and breakthroughs in technology will help facilitate the development of America's unconventional oil and gas resources. The President and CEO of US Seismic Inc., Mr. Jim Andersen, discussed how the new technology his company is developing will enable shale oil and gas producers "to improve efficiency, increase output, and enhance safety, all at a lower cost."

The CEO of US Oil Sands, Inc., Mr. Cameron Todd, further highlighted his company's anticipated pilot project to produce oil from oil sands, noting their innovative process uses "far less water, energy, surface area, and generates less greenhouse gas than any project to date."

Mr. Tony Dammer, the former Director of the DOE's Office of Naval Petroleum and Oil Shale Reserves, noted the Department of Energy has not implemented the policies contained in the Energy Policy Act of 2005 with respect to its responsibilities to develop oil shale. Dammer said that if the sections of the law "were implemented and the unconventional fuels development program was initiated within the DOE, uncertainty and inconsistency in policy would not exist today."

Additionally, Ms. Julian, Mr. Todd, and Mr. Dammer all stressed the need for access to Federal lands for energy development.

The following witnesses testified today before the Subcommittee:

Panel I

The Honorable Charles McConnell, Assistant Secretary for Fossil Energy, Department of Energy

Ms. Anu Mittal, Director, Natural Resources and Environment, U.S. Government Accountability Office

Panel II

Ms. Samantha Mary Julian, Director, Office of Energy Development, State of Utah

Mr. Jim Andersen, Chief Executive Officer and President, U.S. Seismic Systems, Inc.

Mr. Cameron Todd, Chief Executive Officer, U.S. Oil Sands, Inc.

Mr. Anton (Tony) Dammer, Member, Board of Directors, National Oil Shale Association

Read this original document at:
http://science.house.gov/press-release/republicans-question-administration%E2%80%99s-commitment-producing-vast-us-unconventional-oil

House Science, Space, and Technology Subcommittee on Energy and Environment Hearing - "Supporting American Jobs and the Economy through Expanded Energy Production : Challenges and Opportunities of Unconventional Resources Technology ."
Government Press Releases (USA) - Friday, May 11, 2012
Introduction:

Chairman Harris, Ranking Member Miller, and other members of the Subcommittee, I am Jim Andersen, President and CEO of US Seismic Systems, Inc. (USSI). Thank you for this opportunity to testify today.

US Seismic Systems, Inc., (USSI) an Acorn Energy portfolio company (ACFN:NASDAQ) is a Delaware corporation headquartered in Chatsworth, California whose primary focus is to develop and manufacture sensor systems for the Oil & Gas sector based upon proprietary fiber optic technology. These sensors, which are powered only by light, are designed to replace the 50-year old copper wire-based sensor technology that is currently in widespread use within the oil Exploration and Production (E&P) industry. The existing 50 year-old sensor technology is too costly and unreliable to support the new oil and gas recovery techniques needed to meet the world's increasing demand. USSI's fiber optic sensor systems are designed to replace these legacy systems, with more reliable, more precise, less expensive, and inherently safe systems.

The USSI fiber optic sensor technology is revolutionary, with three patents issued, and ten patents pending. USSI's all-optical sensors represent a radical departure from today's electronic-based sensing systems; they function with no in-situ electronics, copper conductors, or electrical power. The USSI

system eliminates the need for electronics, electrical connectors, batteries, and heavy copper cables in the field. USSI's new fiber optic sensing systems provide users with a huge competitive advantage over those relying on electronic sensor technology. They will enable users to improve efficiency, increase output, and enhance safety, all at a lower cost. USSI has a world-class business and technical team, internationally recognized for their expertise in fiber optic sensors and related technology.

Environmental issues/concerns with the unconventional energy production process are threatening to derail the current revolution in the US energy market. USSI believes that we all must recognize that despite following all the best practices, problems can and do still occur, i.e., fractures can occur outside of the intended zones, and well casings do sometimes leak.

USSI believes it is better to install systems that can detect the occurrence of these potential problems, such that they can be corrected before significant damage occurs.

Overview of USSI Fiber Optic Technology

By way of overview, US Seismic Systems Inc. (USSI) has developed an Ultra-High Sensitivity (UHS) fiber optic seismic sensing system designed to replace the expensive, unreliable, bulky electronic geophones and equipment used in existing oilfield seismic monitoring systems with a high sensitivity, low cost, ultra-reliable fiber optic geophone system. The USSI system eliminates all in-situ electronics and electrical power cables, while providing superior signal to noise performance as compared to legacy systems.

For over 50 years, it has been generally accepted within the oil & gas industry that geophones represent the most effective and reliable approach for monitoring subsurface seismic activity. Conventional geophones consist of a magnet mounted inside a wire coil. Relative motion between the magnet and the wire coil produces an output that is proportional to the level of seismic activity. These geophones systems have performance that is marginal for today's new unconventional oilfield recovery methods and they are simply too costly. Since the USSI fiber optic geophone relies on a completely different technology than the magnet/coil geophone (laser light and optical fiber vs. electricity and copper wire), it is not subject to the same performance limitations. As a result, USSI is able to design and build fiber optic geophones with detection sensitivities more than 100 times higher than the conventional electronic geophones. As a matter of fact, the performance of the USSI fiber optic geophone is superior to the performance of the traditional geophones in every key category: sensitivity, noise floor, distortion, bandwidth, and dynamic range, and all at a lower cost. The major advantage fiber optic sensors have over conventional electronic-based sensors is the ability to separate the electronics (preamplifiers, filters, ADC, multiplexing electronics, etc.) from the sensor, taking the electronics out of the hostile sensing environment (downhole, ocean bottom, buried, etc.), allowing the electronics to reside in a benign controlled environment, where they are always accessible for repairs or upgrades.

The chart above shows how the performance of the USSI fiber optic geophone compares with other oilfield geophone sensor technologies and with industry requirements. As can be seen in the chart, the USSI system has the lowest noise floor of all microseismic systems on the market. This translates into the ability to detect much quieter signals.

USSI's systems are based upon proven fiber optic technology originally developed for the US Navy's Virginia Class nuclear submarine LWWAA program. LWWAA is the largest fiber optic sensor system in production, valued at over $450M. While I am now USSI's CEO, I previously started and led Litton's (now NG) Fiber Optic Strategic Business Unit that designed and manufactured the LWWAA system. Key members of the LWWAA team are now at USSI. USSI has commercialized the technology for improved reliability and lower cost.

How does the USSI Fiber Optic Sensor Work?

The sensor in the USSI system is simply optical fiber. The optical fiber also serves as the transmission path to and from the fiber optic sensors. Engineers at USSI have developed proprietary techniques to package the optical fiber in ways that enhance its sensitivity to seismic signals. The system works as

follows: Laser light from the Interrogator is launched down the optical fiber to the geophone array. Seismic disturbances cause the phase of the light going through the geophones to change. The phase

The optical interrogator electronics includes a laser source with a phase modulator which imparts a high frequency carrier (modulation signal) onto the light launched down the fiber, as well as the receiver electronics for demodulating the reflected signals and translating them into a digital electronic signal. The fiber optic telemetry cable provides the data path to and from the individual sensors, and incorporates optical connection units that serve as the connection point for the individual geophones. The optical geophone converts the ground motion into an optical phase shift which is demodulated in the interrogator. The remotely deployed fiber sensor/telemetry cable contains no electronics. All of the electronics resides in the interrogator.

Hydraulic Fracturing for Unconventional Resource Development Defined

Hydraulic fracturing is a well stimulation process used to release oil, natural gas, geothermal energy, and even water from "tight" underground formations to maximize the extraction of these resources. Hydraulic fracturing is used by the oil and gas industry to fracture low permeability, resource-bearing subsurface rock to allow oil or natural gas to move more freely from the rock pores to production wells that bring the oil or gas to the surface.

During hydraulic fracturing , frac fluid, consisting primarily of water with chemical additives, is pumped into a geologic formation at pressures up to 15,000 psi. The high pressure of the fluid, which is designed to exceed the rock strength, opens or enlarges fractures that can extend several hundred feet away from the well. After the fractures are created, proppants in the fluid are pumped into the fractures to keep them from closing when the pumping pressure is released. After the fracturing is completed, the downhole pressure of the geologic formation causes the injected fracturing fluids to rise to the surface where it is typically stored in tanks or pits prior to disposal or recycling. Since the flowback fluid may contain numerous contaminants, proper handling/disposal of the flowback fluid is required.

Importance of USSI's Fiber Optic Systems for Unconventional Energy Production

Currently, less than about 3 per cent of 20,000+ frac jobs performed annually in the United States are monitored. This monitoring process, called microseismic monitoring combines subsurface sensors with powerful data collection and analysis software, to record the myriad of tiny microseisms (or microearthquakes) that occur as fluid is pumped into a well bore, splitting or fracturing the subsurface rock formation holding the natural gas or oil. The individual locations of these microseismic events are then mapped to create an image of the fracture locations. As the name microseismic implies, these are small events, thus the need for the much higher detection sensitivity of USSI's fiber optic geophones.

Many leading producers will readily admit that increased monitoring will lead to reduced environmental impact and improvements in efficiency, however, based upon today's electronic sensor technology, it is simply unaffordable. The problem is that using today's electronic sensor technology, the cost of a system to provide the monitoring is approximately $5M, which is comparable to the cost of completing the well. This is cost prohibitive, especially at today's low gas prices. And, this cost does not include the drilling of instrumentation wells for the sensor arrays, or their installation. Fortunately, USSI's fiber optic sensor systems for microseismic monitoring are based upon proprietary fiber optic technology that is substantially less expensive. In full production we currently estimate, that USSI's microseismic systems will sell for approximately 10% of the cost of today's electronic systems. USSI is in discussions with the companies responsible for over 75% of the frac jobs performed annually in the US.

As is usually the case with the introduction of a new technology, a few forward looking companies looking to become industry leaders in the responsible and efficient development of our country's shale gas resources become the early adopters. Such is the case with FTS International www.ftsi.com (previously Frac Tech Services), a leading independent provider of well stimulation (hydrofracking) services for the oil and gas industry in the United States with a focus on environmentally friendly ways to do business -developing vital assets and promoting energy independence, while protecting natural resources. FTS International, one of this country's largest multi-stage, unconventional completion services companies,

intends to work with USSI to develop a custom fiber optic microseismic monitoring solution that will eventually enable FTSI to be the first to offer cost-effective monitoring of 100% of their frac jobs.

Why Increased Monitoring will Address the Major Environmental Concerns

Several of the major areas of environmental concern can be minimized via increased monitoring during and after the hydrofracking process, these include:

. Chemical contamination of subsurface fresh water aquifers

. Gas Migration

. Induced Seismicity

Chemical contamination of subsurface aquifers can be caused by either fractures/fissures occurring outside of the desired fracture zone, or leakage along the well bore due to a faulty casing/cement job. Both of these adverse events can be detected via low cost, passive downhole fiber optic sensors. Once detected, remediation efforts to correct the problem can be implemented.

Gas migration refers to gas entry into the cemented annulus (area between metal casing strings) creating channels with the potential to provide a gas/fluid flow in the annulus. Migrating gas can affect water supplies, as well as potentially accumulate inside or next to structures such as residences, businesses and farming operations. This could create a risk of a fire or explosion. Gas migration may become a threat to the health, safety and welfare of the public. Properly cementing and casing a well is very important to prevent gas migration. In May of 2011 researchers at Duke University released a study that found high levels of leaked methane in well water collected near shale-gas drilling and hydrofracking sites. The Duke researchers said that the presence of methane likely was due to its escape from faulty drill casings (gas migration). This peer-reviewed study was published in the Proceedings of the National Academy of Sciences.

USSI has developed a well bore leak detection system (patent pending) designed to detect leakage along the well bore surface casing. The system is based upon the USSI PipeSafe" fiber optic leak detection system for natural gas pipelines.

Induced seismicity refers to earthquake activity that is the result of human activity. Numerous studies have indicated that induced seismicity can be caused by injecting fluid into the subsurface or by extracting fluids at a rate that causes subsidence and/or slippage along planes of weakness in the earth. Lawrence Berkeley National Laboratory is currently conducting extensive research into induced seismicity brought on by hydrofracking operations for both oil and gas extraction and enhanced geothermal activity, and believes that monitoring during the hydrofracking process will allow more precise control thereby minimizing induced seismic events.

Conclusion:

In conclusion, as I have described in my testimony today, USSI has developed revolutionary fiber optic sensing technology that can have a large potential impact on unconventional energy production. USSI acknowledges that even when following the best industry practices, unexpected problems may occur. Fractures can occur outside the desired zone, and documented cases of gas migration have been reported for years, even prior to the revolution in shale gas. Fortunately, the technology now exists to detect these problems such that remediation can be performed prior to the onset of significant environmental damage.

Again, thank you for the opportunity to testify today, and I look forward to answering any questions that you might have.

Read this original document at:
http://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/HHRG-112-%20S

Y20-WState-JAndersen-20120510.pdf

API: Energy from Shale is a 'Game Changer' for Jobs and Economic Growth in Ohio

Targeted News Service (USA) - Friday, May 11, 2012
CLEVELAND, May 11 -- The American Petroleum Institute issued the following news release:

At a City Club of Cleveland event, API President and CEO Jack Gerard said that Ohio was experiencing an energy "rebirth" and that it could be a game changer for jobs and economic growth in the state.

"Ohio has immense opportunities to create thousands of jobs thanks to the Utica and Marcellus shale plays," said Gerard. "Responsible energy production has already generated more than $22 billion for the Buckeye state. It is the industry's use of new technology like horizontal drilling and hydraulic fracturing that has given fresh life to energy development in Ohio."

A March poll of likely Ohio voters, conducted by bipartisan groups Public Opinion Strategies and Frederick Polls on behalf of API, found that 73 percent of Ohio voters favor more development of U.S. oil and natural gas resources.

The poll found that large majorities agree that more U.S. oil and natural gas development could lead to more American jobs (91 percent), increase the nation's energy security (86 percent), help reduce consumer energy costs (84 percent), and deliver more revenue to the government (75 percent).

Seventy-four percent believe that some in Washington are intentionally delaying domestic oil and natural gas development, potentially hurting the economy and leading to higher energy costs for consumers.

"With the combination of oil and natural gas, coal, nuclear, renewable and alternative energy sources such as biofuels we have the largest energy resources in the world--more than Saudi Arabia, more than China, and more than Iran, Iraq, Libya, and Kuwait combined," said Gerard. "If we take lessons from states like Pennsylvania and North Dakota, can create a bright economic future for Ohio, but we need public and tax policies that will bring investment and jobs to the state, not drive them away."

TNS CT21CT-120512-3872023 61ChengTacorda
Memo: Sabrina Fang, 202/682-8114, fangs@api.org

EVIDENCE BACKS FRACKING HAZARDS

Times Union, The (Albany, NY) - Friday, May 11, 2012
Finally, there is actual evidence of pollution due to fracking .

Article after article describes the potential hazards of fracking but real evidence has been lacking. Thousands of natural gas wells have been hydraulically fractured since 1947 but the only documented case of pollution is methane well contamination in Dimock, Pa. Although methane (natural gas) is odorless, tasteless and nontoxic and I use it throughout my house, I wouldn't want it in my well. But this one example is just not enough to offset the huge economic benefit of domestically produced natural gas.

There is evidence of pollution as reported in the April 25 article, " Fracking hazardous to New Yorkers' health," by Sandra Steingraber. Steingraber, a distinguished scholar at Ithaca College, reports that trucks traveling to hydrofracturing sites emit exhaust fumes. Exhaust fumes from cars and trucks are indeed hazardous; the carcinogenic effects have been well understood for decades. She doesn't even mention that the storage of gasoline and diesel fuel creates thousands of cases of serious groundwater pollution every year. In our region alone the EPA reports, "Cleanups have been initiated at 36,569 of the LUST (leaking underground storage tank) sites." http://www.epa.gov/region02/ust/

We need to do something about this terrible pollution. One easy solution would be to use less gasoline and diesel fuel and more natural gas. Cars, trucks and buses that use clean burning natural gas produce much less air pollution and no groundwater pollution.

The March 21 article, "No drive for natural gas cars," points out that Joe Darling of Niskayuna drives his

car 250 miles on $6.40 worth of natural gas. Darling is smarter than we are; we complain while he actually does something about it. In addition, his $6.40 is likely to go to a Pennsylvania or New York farmer with a gas well on his property while my $45 gasoline fill-up probably helps to support terrorists.

DAVID HAUBER Troy

Chesapeake plans long commitment to Valley , official says
Vindicator (Youngstown, OH) - Friday, May 11, 2012
Author: Burton Speakman, Vindicator, Youngstown, Ohio

May 11--POLAND -- Chesapeake Energy plans to continue to invest significantly in the Mahoning Valley for decades to come, a company official said Thursday night.

Ryan Dean, senior manager of corporate development for Chesapeake, was featured speaker at the 2011 annual meeting of United Way of Youngstown and the Mahoning Valley.

Part of the reason the United Way wanted Dean to speak is Chesapeake's commitment to the United Way in other areas, said Bob Hannon, president of the local United Way. Chesapeake has a $1 million endowment in Fort Worth, Texas, with the United Way.

"I think this company will have a big impact in the Valley," he said.

Dean focused much of his speech on explaining why Chesapeake has chosen to become active in the Mahoning Valley.

"Youngstown is uniquely situated between the Marcellus and Utica shales," he said at the Lake Club event. "Both shales will create opportunities."

Chesapeake is the nation's second-largest producer of natural gas, generating 9 percent of the gas produced domestically, Dean said. The company is moving away some from dry natural gas because of the current low price for the product. The Utica Shale is expected to have more fluid-based natural gas.

The company remains in the early stages of development in the Utica Shale. Chesapeake has drilled 59 wells in Ohio, and nine of those are producing, he said. The company has 10 drilling operations in the area now, but that number is expected to be about 13 by the end of the year and should reach 22 by the end of 2013.

"We're still finding our way along for where we're going to find the best results," Dean said.

Chesapeake has announced plans to invest $900 million in a facility in Columbiana County to treat the fluid gas that comes form the wells, he said. Throughout Ohio the company has invested $2 billion in acquiring leases.

"Right now we're only 18 months into what is a very long-term process," he said.

These wells are expected to produce for the next 20 to 50 years, Dean said.

Dean also spoke about jobs his company and others in the oil and gas industry would help to create.

About 410 people are needed to turn one well into a producing site, Dean said. Those jobs range from engineers, truck drivers, rig hands and other positions.

"Jobs are available for everyone in a drilling operation," he said. "It's not just petroleum engineers."

Much of the attention paid toward drilling in the shale has centered on the fracking process, Dean said.

Fracking requires only about 10 days out of about nine months it takes to put a well into production, he

said.

Things are starting to turn around for the Mahoning Valley, said Ed Muransky, owner of The Lake Club.

"It's nice to see after all these years of people moving out, that new people are starting to find our Valley," he said.
Memo: --- (c)2012 Vindicator (Youngstown, Ohio)

Feds: N.D. may use Missouri River for now
Bismarck Tribune, The (ND) - Thursday, May 10, 2012
Author: JAMES MacPHERSON Associated Press

BISMARCK - Temporary, no-cost permits to tap surplus water from North Dakota's Lake Sakakawea will be issued to oil drillers and other industrial users until a national policy can be developed on how much, if anything, to charge, the U.S. Army Corps of Engineers said Wednesday.

North Dakota Sens. Kent Conrad and John Hoeven, Gov. Jack Dalrymple and state Attorney General Wayne Stenehjem released statements saying the state will fight any attempt by the federal government to charge water users in the future.

North Dakota's booming oil patch in the western part of the state has brought big demands for water. To keep pace with escalating production, state and oil industry officials want to draw water from Lake Sakakawea, the largest of the six reservoirs on the Missouri River. One well in North Dakota's rich Bakken formation can use up to 3 million gallons of water during hydraulic fracturing , a process that uses pressurized fluid and sand to break open oil-bearing rock 2 miles underground.

State officials said Jo-Ellen Darcy, the assistant secretary of the Army for civil works, has promised that water users won't be charged while the corps develops a national surplus water policy, a process that could take 11/2 years.

That process will determine "if or what pricing would be appropriate," said Larry Janis, a corps spokesman in Omaha, Neb.

"Water users with pending permits will now have access to the river," Dalrymple said in a statement late Tuesday. "The U.S. Assistant Secretary of the Army has assured us they will begin issuing permits without any further unnecessary delay."

About 100,000 acre feet of water will be available from Lake Sakakawea in the interim, an amount that's expected to satiate the state's immediate needs, officials said. An acre-foot is the amount of water covering an acre, one foot deep.

The corps began blocking access to Missouri River water in North Dakota in May 2010. A study at that time proposed charging for water to recover costs for building the Garrison Dam, which formed Lake Sakakawea. The dam was built in the early 1950s and the lake divided the Fort Berthold Indian Reservation, which is home to the Three Affiliated Tribes.

North Dakota officials said the state was promised the ability to use Missouri River water for municipal, industrial and irrigation uses in exchange for sacrificing of 550,000 acres of prime farmland to create the lake.

Stenehjem, the state's attorney general, North Dakota also is guaranteed the use of navigable waterways from existing federal law and the state's constitution.

The state will "vigorously defend" its legal right to the Missouri River water, he said.

North Dakota is entitled to some 25 million acre feet of water annually from the river, Stenehjem said. That's enough, he said, "for our uses and to supply water for downstream states."

Bismarck-based Basin Bismarck-based Basin Electric Power Cooperative, which owns two coal-fired power plants, is the only industrial water user of the Missouri River at present in North Dakota, the corps said. The utility, which pays a fee for water usage, won the right to use Missouri River water though a lawsuit some 30 years ago.

Tribal leader opposes proposed fracking rule

Bismarck Tribune, The (ND) - Thursday, May 10, 2012
NEW TOWN (AP) - A former president of the National Congress of American Indians says his tribe opposes proposed federal rules to require companies drilling for oil and gas on public and Indian lands to disclose chemicals used in hydraulic fracturing .

Three Affiliated Tribes Chairman Tex Hall stated his position Tuesday during an energy expo on the Fort Berthold Indian Reservation, which lies in western North Dakota's booming oil patch. Hall believes federal red tape and redundant regulations threaten to slow oil development on the reservation.

The process commonly known as fracking uses pressurized fluid and chemicals to break open oil-bearing rock. It is controversial because some people fear it will harm the environment. The Obama administration on Friday issued its proposal for disclosure on public and Indian lands. The proposed rules also set standards for proper construction of wells and wastewater disposal. Interior Secretary Ken Salazar said the rules will allow continued expansion of drilling while protecting public health and safety.

Hall said he is not opposed to disclosure of fracking chemicals but feels the proposed federal rules go too far.

"We shouldn't be held up by federal obstacles or federal red tape," he said. "These rules are severely impacting the bigger economy at Fort Berthold."

Terry Kovacevich, an asset manager for Marathon Oil in Dickinson, echoed Hall's comments, saying the proposed federal fracking rules duplicate what the state already has in place and will slow oil production.

"All of this will drive development away from the reservation," Kovacevich said.

Rick Hotaling, acting North Dakota field manager for the federal Bureau of Land Management, said the rule was amended to require the fracking chemical disclosure after completion of a well rather than before, in response to industry concerns.

The proposed rules are subject to a 60-day public comment period. A final order is expected by the end of the year.

Five spills reported at gas pipeline sites

Citizen's Voice, The & Sunday Voice (Wilkes-Barre, PA) - Thursday, May 10, 2012
Author: Elizabeth Skrapits (Staff Writer)

DALLAS TWP. - The state Department of Environmental Protection is monitoring a series of drilling mud spills at a natural gas pipeline installation.

Chief Gathering LLC, recently bought out by PVR Partners, hired contractors to install a pipeline to connect natural gas wells in Susquehanna County to the Transco interstate pipeline in Dallas Township.

Since May 1, there have been five spills of more than 6,000 gallons of water containing bentonite, a type of clay used in drilling operations, at two different Dallas Township sites: Leonards Creek on Kunkle Road and Upper Demunds Road and Goodleigh Road, outside Goodleigh Estates, according to a report from DEP. On Thursday, crews sucked up the mud at the Upper Demunds Road site using vacuum trucks.

Chief's Vice President of Industry Affairs Kristi Gittins said releases of mud at pipeline boring sites are not uncommon and "we plan for them and we deal with them." No chemicals or additives were used, she said.

DEP has been to the site and approved remediation plans, Gittins said. She said Chief is providing information to DEP and the agency does regular follow-up visits.

The DEP report shows five "inadvertent return to surface" incidents involving drilling mud with bentonite coming up from the ground at two horizontal drilling sites.
The first occurred at 8:30 a.m. May 1, with 50 gallons of mud released at a wetlands next to Leonards Creek on Kunkle Road. It was contained at the site. The next day at the same site 20 gallons escaped containment but did not impact the creek. Then again on May 2, 200 gallons overflowed at the site. It was also cleaned up, DEP reported.

In the fourth incident, on Monday, about 1,000 gallons of bentonite was spilled and drilling mud was discovered coming from an old springhouse between Kunkle Road and Leonards Creek. Not all the bentonite was contained at the time, and DEP reported the creek was cloudy. By Thursday, most of the bentonite was cleaned up.

The fifth incident occurred Saturday, when 5,000 to 6,000 gallons of bentonite was lost in wetlands about 200 feet off Upper Demunds Road, according to DEP. The drilling mud was contained on the site with hay bales and is being removed by a vacuum truck.

The Upper Demunds Road spill occurred outside an upscale development where the pipeline installation created controversy.

Several Goodleigh Estates residents sued their neighbors for leasing Chief a right-of-way, asking Luzerne County court to stop the pipeline construction on the grounds it violated the development's covenants and would create a nuisance.

Chief was not named in the suit, but the company sued the residents, claiming their efforts to delay the pipeline could cost the company from $683,000 to $18 million or more. Chief also asked them to pay damages for making "defamatory and malicious" statements about the company in local media and on Facebook.

Chief and the residents came to an agreement in November that dismissed the suits.

Under the undisclosed terms of the agreement, the residents are prohibited from commenting about Chief.

eskrapits@citizensvoice.com, 570-821-2072
Caption: Mark Moran / The Citizens' Voice Above and below: Workers from Southeast Directional Drilling pump drilling mud from a Chief Gathering LLC pipeline on Upper Demunds Road, near Goodleigh Road, in Dallas Township.

REP. ANDY HARRIS HOLDS A HEARING ON EXPANDED ENERGY PRODUCTION - UNCONVENTIONAL RESOURCES TECHNOLOGY

Congressional Quarterly Transcriptions - Thursday, May 10, 2012
Show: COMMITTEE HEARING

HOUSE COMMITTEE ON SCIENCE, SPACE AND TECHNOLOGY, SUBCOMMITTEE ON ENERGY AND ENVIRONMENT HOLDS A HEARING ON EXPANDED ENERGY PRODUCTION - UNCONVENTIONAL RESOURCES TECHNOLOGY

MAY 10, 2012

SPEAKERS: REP. ANDY HARRIS, R-MD. CHAIRMAN REP. DANA ROHRABACHER, R-CALIF. REP. ROSCOE G. BARTLETT, R-MD. REP. FRANK D. LUCAS, R-OKLA. REP. JUDY BIGGERT, R-ILL. REP. TODD AKIN, R-MO. REP. RANDY NEUGEBAUER, R-TEXAS REP. PAUL BROUN, R-GA. REP. CHUCK

FLEISCHMANN, R-TENN. REP. RALPH M. HALL, R-TEXAS EX OFFICIO

REP. BRAD MILLER, D-N.C. RANKING MEMBER REP. LYNN WOOLSEY, D-CALIF. REP. BEN RAY LUJAN, D-N.M. REP. PAUL TONKO, D-N.Y. REP. ZOE LOFGREN, D-CALIF. REP. JERRY MCNERNEY, D-CALIF. REP. EDDIE BERNICE JOHNSON, D-TEXAS EX OFFICIO

WITNESSES: CHARLES MCCONNELL, NOMINATED TO BE ASSISTANT SECRETARY FOR FOSSIL ENERGY, DEPARTMENT OF ENERGY

ANU MITTAL, DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

SAMANTHA MARY JULIAN, DIRECTOR, OFFICE OF ENERGY DEVELOPMENT, STATE OF UTAH

JIM ANDERSEN, CEO AND PRESIDENT, U.S. SEISMIC SYSTEMS, INC.

CAMERON TODD, CHIEF EXECUTIVE OFFICER, U.S. OIL SANDS, INC.

ANTON DAMMER, MEMBER, BOARD OF DIRECTORS, NATIONAL OIL SHALE ASSOCIATION

[*] HARRIS: The subcommittee will come to order.

Good morning and welcome to this morning's hearing entitled Supporting American Jobs and the Economy through Expanded Energy Production: Challenges and Opportunities of Unconventional Resources Technology. Two weeks ago, the Space -- Science, Space, and Technology Committee heard from expert witnesses about America's vast untapped unconventional energy resources. The amount of energy under own soil is striking. With continued technological advances and the right policies to enable access to these resources, America could become the global leader in energy production for the next generation and beyond.

For example, the Green River Basin located in Colorado, Utah, and Wyoming may contain up to three trillion barrels of oil -- more potential oil than the rest of the world's current oil reserves combined. If this energy -- which is overwhelmingly on Federal lands -- is made available, I am confident American ingenuity will find ways to responsibly explore and produce this resource.

Portions of the United States are already experiencing the significant economic benefits of unconventional energy production. North Dakota's unemployment rate is now the lowest in the nation due to the shale oil revolution. The state's top economic challenge is not job creation, but rather finding enough workers to fill the thousands of job openings created by the energy boom -- a problem most states would love to have.

The federal government should afford other states the opportunity to replicate this success story through aggressive pursuit of leasing, permitting, and technological opportunities.

Unfortunately, when it comes to unconventional energy, the president talks the talk more than he walks the walk. Beginning with his State of the Union speech earlier this year, the president has touted the historical contributions of the Department of Energy's fossil energy research program, while his annual budget request to Congress repeatedly calls for elimination of the very same program.

And while the president regularly boasts of his support for a quote, "all of the above," energy strategy, his administration is focused more on producing new regulations and restrictions than it is on producing more oil and gas. For example, the president has unleashed 10 different federal agencies in pursuit of potential regulations on hydraulic fracturing .

Similarly, the president's campaign website includes a quote, "all of the above," energy page that neglects to even acknowledge the fuel providing 45 percent of the United States' electricity -- coal.

It is clear the president continues to pick his preferred energy technologies at the expense of the free

market and consumer need and choice. Perhaps most incredibly, just three days after his State of the Union speech declaring his commitment to this all of the above energy strategy, the president's Interior Department effectively reduced lands available for oil shale development by 75 percent -- putting over 1.5 million acres off limits not only to exploration and production, but also to research and development.

This morning I am interested in examining the impact of the administration's anti-fossil fuel policies, as well as exploring what targeted research questions DOE can and should address to facilitate the further development of America's unconventional energy resources. I also look forward to hearing how innovative companies are enabling more efficient and environmentally sound development of America's unconventional oil and gas resources.

I thank the witnesses for appearing before the subcommittee, and I now recognize Ranking Member -- I'm sorry, Mr. Tonko is the -- well, I guess, you're the ranking member for today, huh? The substitute ranking member for his opening statement.

TONKO: Thank you, Mr. Chair.

Today's hearing is focused on another unconventional fossil resource that we have heard about many times in the past decades. Every time oil prices have spiked or that we have become concerned about a major disruption in our oil supplies, oil shale gets a new look.

Why we continue to use public funds to pursue this energy source is truly a subject for research, I believe. The oil companies and the federal company have poured millions of dollars into research demonstration projects and subsidies to find an economically viable way to develop this resource. Yet, it is still years, if not decades away from being economically, technologically, and environmentally viable.

Oil shale should not be confused with shale oil. Shale oil is being commercially produced along with shale gas in various places around our great country. Through application of conventional fracturing processes, oil is released from shale formations and then pumped to the surface.

Oil shale, on the other hand, is essentially a rock that must be heated at extremely high temperatures for long periods of time before the hydrocarbons within it are -- are indeed released. The magnitude and severity of the impacts on land, water, and other natural resources require to turn rock into oil are only part of the reason that these resources have never been commercially viable. They should serve as our queue to look beyond oil.

I have listened as many of my Republican colleagues questioned the wisdom and need for public investments in renewable energy resources either through support of research or through tax incentives. But when it comes to offering subsidies to one of the wealthiest and most profitable industries in the world -- the oil industry -- their generosity knows no bounds.

When I look at the potential for oil shale, I can only wonder why we should be throwing more hard-earned taxpayer dollars after bed. Even though gas prices have recently come down a bit our constituents still feel the pain at the pump and know that it is just a matter of time before another price spike hits. The public is tired of seeing an increasing portion of their paycheck go to the most profitable companies in the world along with outsized portion of their tax dollars in the form of tax breaks for the oil and gas industry.

Subsidizing oil shale has never lowered gasoline prices or led to our energy independence. I do not believe it ever will. In spite of years of government support for research and development -- since the early 1900's -- this resource has proven to be much more bust than boom. The high cost of delivering this energy will inevitably translate into high retail prices for refined products.

It is time we took a different path and invested in alternative energy resources. The oil industry has the financial resources to pursue this further if they believe it is viable.

As our witness from the Government Accountability Office, the GAO, will outline from their investigation, there are things the federal government can do to better understand the range of uncertainties regarding

the impact of oil shale development. Among these, understanding the impacts on water quality and quantity stand out as the biggest concerns.

The legendary water battles in the west are not about protecting ecosystems, though that is a worthwhile cost. These battles are about economics. There is no greater indicator of a region's economic potential, its ability to saying human life and industry than its access to clean water. It is hard for those of us from relatively water-rich states to understand what it means for a region whose annual rainfall could be measured in single digits in a good year, but for most westerners it is a sixth sense.

I happen to be from an area of the country that is blessed with abundant high-quality water resources. Given the current and looming shortages of water in many areas of the west, I cannot imagine why we would consider trading water -- a renewable vital resource for which there is no substitute for a nonrenewable resource that we can only obtain with very costly, highly damaging, and destructive methods. Land and water are not or should not be treated as disposable goods.

The Interior Department released a draft Programmatic Environmental Impact Statement that was not only appropriately cautious, but reflected the reality of the technological immaturity of the oil shale industry. The Department of Interior is charged with managing the nation's lands for the benefit of all the public in a manner that keeps faith with generations to come.

These lands support hunting, fishing and recreation of all types. They serve as protection for watersheds that recharge groundwater supplies and feeds streams and rivers that support agriculture, ranching, power production and countless other businesses. The people engage in these economic activities in Colorado, Utah, and Wyoming also deserve consideration.

A number of groups representing these interests have voiced their concerns about leasing public lands for oil shale development and about its impact on water resources, in particular.

I am attaching several of their past communications on this subject to my testimony today. We should not sacrifice sustainable communities and livelihoods in an attempt to mimic earth's geologic process of converting rock into oil. Can we really ask the public to once again believe that we are going to secure our energy future this way? Perhaps our witnesses this morning can convince me otherwise, but I believe we can make far better investment with public funds by increasing energy efficiency and expanding our use of renewable energy supplies.

I would thank -- I thank our witnesses for being here this morning, and I look forward to hearing their testimony.

With that, I yield back, Mr. Chair.

HARRIS: Thank you very much, Mr. Tonko.

If there are member who wish to submit additional opening statements, your statements will be added at this point.

At this time, I'd like to introduce our witnesses for the first panel. The first witness is Mr. Charles McConnell, assistant secretary for Fossil Energy at the U.S. Department of Energy.

Prior to joining DOE, Mr. McConnell serves as the vice-president of Carbon Management at the Battelle Energy Technology. He also spent 31 years with Praxair in various positions in the U.S. and Asia, including global vice-president. He previously held a number of advisory positions, including chairmanships of the Gasification Technologies Council and the Clean Coal Technology Foundation of Texas.

The second witness on the first panel will be Ms. Anu Mittal, director, Natural Resources and Environment of the U.S. Government Accountability Office. Ms. Mittal has been with the GAO since 1989 during which time she has led a variety of reviews of federal programs related to land management, water resources,

oceans and fisheries, environmental restoration, energy, defense cleanup, housing, food -- you're busy -- science and technology, and agriculture issues.

Thank you for appearing before the subcommittee today.

As our witnesses should know, spoken testimony is limited to five minutes each, after which the members of the committee will have five minutes each to ask questions.

Before I recognize Mr. McConnell, I want to again express what's been a recurrent theme, the displeasure with DOE's habitually late communications to Congress and to this subcommittee and committee.

The testimony for this morning's hearing -- I know if you realize this Mr. McConnell, your testimony was due Tuesday morning at 9:30. That's the standard operating procedure for the committees. We didn't receive it until seven o'clock last night. And seven o'clock last night, we were in session, debating and voting until midnight.

Obviously, members did not have time to review your testimony as we are entitled to under our rules. This extreme tardiness is the rule (inaudible) exception coming out of DOE. Whether it's delivering testimony or responding to letters from me and other committee members and questions for the record, DOE is almost always embarrassingly late. Mr. McConnell, I trust that you will communicate this frustration back to Secretary Chu and his team, and commit to delivering all follow-up materials associated with this hearing to the subcommittee in a timely fashion.

MCCONNELL: (OFF-MIKE)

HARRIS: Thank you. With that, I now recognize Assistant Secretary McConnell to present his testimony. You're recognized for five minutes.

MCCONNELL: (OFF-MIKE)

Very recently, the president laid a specific goal to reduce the imports of oil by a third over the next 10 years. Reducing our imports will have the important impacts of improving our energy security, balancing trade, generating new jobs, and growing our economy. And we're in the progress of making that goal.

Over the past few years, crude imports have dropped from 70 percent to 50 percent, while natural gas today is an abundant and unprecedented price point driven by expanded production of shale gas in an abundance currently as U.S. storage capacity at near capacity.

America is sitting on one of the largest gas finds in the world as well as the globe that we live in today. The benefits are game- changing. EIA estimates that in the current rate of consumption, the nation has a 90-year supply of domestic economically recoverable natural gas. If anybody needs proof that domestic energy production can spark a renaissance in American manufacturing, increased exports can create more jobs.

Just look at the impact of shale gas on the industries across the country. Recent announcement in the global companies such as Shell and Dow -- perfect examples of that.

The American Chemistry Council estimates $16 billion of capital investment, $132 billion in economic output, 17,000 new high-paying jobs, and 395,000 more jobs tangential to the chemical industry. Other industries such as the electric power industry, steel industry, and heavy manufacturing will all benefit from this expanded supply of domestic natural gas.

We're poised to disintegrate things for energy and economic security. But to get those benefits, we'll have to do it right. We'll have to do it right the first time and you don't get to do-overs in this business. Sustainable future requires sustainability in the way we do our work and how the work is performed.

DOE has played a critical role in that development for years. Between '78 and '92, the department

invested $137 million in early research on innovative shale gas technologies that led to investments by independent oil producers.

Today, our research on unconventional resources being conducted against the backdrop of industry's rapidly evolving exploration and production practices. With these advances, they are exciting, but there are also challenges. Hydraulic fracturing processes have received a great deal of attention and people in communities want the confidence that the expansion of the E&P is sustainable. These are primary technical challenges and if they were received a proper focus, sensible focus, they can be addressed.

So going forward, the expertise of our natural gas technologies program is being refocused to help launch an R&D initiative with the EPA and the Department of Interior to address the potential environmental health and safety impacts of natural gas drilling practices, particularly, hydraulic fracturing . This effort is being driven by the Secretary of Energy Advisory Board recommendations focusing on shale gas safety, as well as the president's new interagency working group on unconventional domestic gas resources. And we recently cemented this with an interagency MOU.

FE's role in this initiative will be to conduct R&D to ensure the development of sustainable fracturing technologies and techniques such as cementing wellbore integrity and water usage.

Let me add that while this R&D is focused on shale gas, many of the technologies can be applied and will be applied to shale oil production particularly in areas such as Bakken.

In addition to shale, US-led technology advances are making it possible for us to explore other unconventional resources. A prominent example of this is fossil energy's methane hydrate research process. Recently, we conducted an unprecedented test of technology on the north slope of Alaska that was able to extract a steady flow of natural gas from methane hydrates. This is a combination of cooperative work with the country of Japan, ConocoPhillips, and a collaborative effort with DOE in fossil energy to co-share.

This isn't a subsidy to oil and gas, but it's a critical research done in the early stages of the critical market where resource discovery is necessary.

Our methane hydrate research represents a critical ground floor that can provide a return on investments similar to that of our early shale gas, and we're just getting started.

Additionally, the department has focused on enhanced oil recovery using carbon dioxide from coal-fired power plants with enhanced oil recovery utilizing CO2, putting the CO2 in the ground and producing oil, and safely and long-term permanently storing that CO2 for environmental benefits so we get both the benefit economically as well as environmentally.

Thank you. I look forward to taking your questions.

HARRIS: Thank you very much.

And I'll recognize Ms. Mittal.

MITTAL: Chairman Harris and members of the subcommittee, I am pleased to be here today to participate in your hearing on unconventional oil and gas resources.

As requested, my statement will focus on oil shale and will highlight the opportunities and challenges related to the development of this unconventional energy resource. My statement is based on the findings of a report that we completed for this committee in October 2010. As you know, U.S. interest in oil shale has waxed and waned since the early 1900's because, over time, average oil prices have generally been lower than the threshold necessary to make oil shale development profitable.

More recently, however, higher oil prices have renewed interest in domestic oil shale. The federal government is in a unique position to influence this development because 72% of U.S. oil shale lies

beneath lands managed by the Department of the Interior.

The Green River Formation in Colorado, Utah, and Wyoming contains the world's largest deposits of oil shale. Being able to tap this vast amount of oil locked within this formation will go a long way to help to meet our future demands for oil. The U.S. Geological Survey, as you noted, estimates that the formation contains about three trillion barrels of oil of which half may be recoverable.

As you can imagine having the technology to develop this vast energy resource will lead to a number of important socioeconomic benefits including the creation of jobs, increases in wealth, and increases in tax and royalty payments for federal and state governments.

Along with these positive outcomes, there are a number of key challenges that also should be considered. First, there is the uncertainty surrounding the viability of current technologies. Today, no commercial-scale surface retort or NC2 technology has been proven in the United States that is both economically and environmentally viable.

According to some energy experts, the key to developing U.S. oil shale will be through an NC2 process because most of our richest oil shale is buried beneath hundreds of feet of rock, making mining difficult or impossible.

Second, developing oil shale poses significant environmental challenges for water quantity and quality, air quality and wildlife. The water quantity and quality challenges are of particular importance because developing oil shale will require significant amounts of water, which could pose problems in the Arid West. Estimates of the quantities of water needed to support oil shale developments very significantly depending upon the assumptions that you use. However, it is expected that while the water is likely to be available for the initial development of the industry, the eventual size of the industry may ultimately be limited by the water availability.

In addition, in the absence of effective mitigation measures, oil shale development could significantly impact water quality through increase run-off of sediment salts and chemicals, decrease downstream flows, permanent groundwater impacts to aquifers, and wastewater discharges to streams and rivers. While large-scale oil shale development offers socioeconomic opportunities, it also poses certain socioeconomic challenges that also should not be overlooked. Oil shale development like other extractive industries can bring a sizable influx of workers who, along with their families, put additional stresses on local infrastructure. Development from expansion of extractive industries has historically followed a boom and bust cycle, making planning for growth difficult for local governments.

As we noted in our 2010 report, industry experts believe that the U.S. is currently at least 15 to 20 years away from developing a large-scale oil shale industry, but there are certain actions that federal agencies can begin to take now to proactively prepare for such an industry. These include improving collaboration between federal agencies on research and developing more comprehensive baseline information on the current ground and surface water conditions in the region. Such information will help position federal agencies to better monitor and mitigate the impact of oil shale development if a viable industry should emerge.

In conclusion, Mr. Chairman, while there are potential opportunities for the development of oil shale, they must be balanced with a technological, environmental, and socioeconomic challenges that are also present.

This completes my prepared statement. I would be pleased to answer questions that you might have.

HARRIS: Thank you very, very much. And we'll begin the questioning.

The members will have five-minute -- will be recognized for five minutes, and I recognize myself first.

Mr. McConnell, as you know the president has recently talked, as I said in my opening statement, about this all all-of-the-above energy strategy, so I'm going to ask you just a few questions by what the

administration means by all of the above.

First of all, is gas production from methane hydrate one of the components of all of the above?

MCCONNELL: Yes.

HARRIS: OK. Can you just explain why for the last three fiscal years then the fossil energy budget request is proposed to eliminate the program -- fiscal year '10, '11, and '12?

MCCONNELL: I can't speak to those previous years, but I can tell you the budget request for '13 has it in there. Last year, we did work on methane hydrates with funding that was provided through the Office of Science recently conducted a test.

HARRIS: I know, you mentioned that. Well, thank you very much and I appreciate the change of heart, believe me.

Now, is oil shale part of the all of the above strategy?

MCCONNELL: Oil shale is -- is certainly a part of the all of the above strategy, yes.

HARRIS: And what -- what is the administration doing to actively support the development of oil shale?

MCCONNELL: Much of the work that we're doing in the unconventional processing work that we're doing, oil provides a lot of the baselines for that industry as well as the hydraulic fracturing that's doing on the natural gas, as well as tide oil that's going on in that area as well.

HARRIS: Right. But with regards specific to oil shale, what's the level of investment that the administration is proposing?

MCCONNELL: We don't have a specific line item in this year's budget.

HARRIS: Do you have any idea about how much out of the -- I think the, you know, the DOE -- I don't know, they're several billion dollar budget. How important are they looking for the future, toward the future for oil shale? Is it $5 million, $10 million, $15 million?

MCCONNELL: In this year's budget request, it was zero.

HARRIS: Oh, zero? Oh, OK. It doesn't sound like much active support. But what about oil sands, is oil sands part of the all of the above approach?

MCCONNELL: It is part of the all of the above approach, and it's also part of what we're constantly looking at in part of our overall process.

HARRIS: OK. Is that also line item zero in the DOE budget?

MCCONNELL: We have a number of line items that aren't specifically identified by the market segments you're identifying, but in terms of the key technologies and the crosscutting research that goes on from technologies that apply to many of the markets that you're mentioning.

HARRIS: OK. Well, may we -- perhaps you can follow up with some detail. We'll have some follow-up questions.

The DOE has, you know, requested, as you said I think, $12 million in the budget to -- I think you called it R&D initiative. But what it sounds like is, you know, I understand and minimize the potential environmental health and safety impacts of shale gas. I mean, most people would realize this is the pro you to regulation basically. Is there any research that you're doing that might actually help increase production?

MCCONNELL: There should is.

HARRIS: OK. MCCONNELL: It would be wellbore integrity. We're looking at processes in terms of extraction. And we don't draw a distinction between sustainability and extraction techniques. We see it as one and the same because it has to be done right the first time with a sustainable impact.

HARRIS: Right. And done right the first time. You are aware that, for instance, hydraulic fracturing has been done 1.2 million times in the United States, right, with no documented evidence of contamination of drinking water ever.

MCCONNELL: That's correct.

HARRIS: That sounds not only done right the first time, it sounds like done right 1.2 million times. But anyway, we're going to have difference of opinion on that probably.

Now, in 2007, the Department of Energy's Strategic Unconventional Fuels Task Force published a strategy and program plan that include numerous recommendations on how the federal government could support unconventional energy -- development of unconventional energy. Is the DOE implementing any of the recommendations made by that task force back in 2007?

MCCONNELL: We're working -- continue to work year-over-year with the RIBSI Organization (ph) following that -- following those sets of recommendations.

HARRIS: What progress has been made on the specific recommendation to, quote, "provide an effective land tenure system," end quote, for access to resources on public lands.

MCCONNELL: That's a question I can't answer. I don't know the...

HARRIS: OK. Perhaps you could, you know, get the answer and provide it in writing.

What -- what progress has been made on the recommendation, quote, "to provide an inclusive regulatory system and development process that encourages expeditious development and a predictable schedule for permitting and approvals?" Is the administration doing anything to encourage a predictable schedule for permit approvals?

MCCONNELL: That's not something in fossil energy that I am aware of directly, and I'll have to provide that to you as well.

HARRIS: No, thank you. And do you know if the task force is still actively meeting and producing work products? Is that task force still having meetings?

MCCONNELL: It does meet from time to time regularly as -- I can't speak to how often it has met, but it has had routine meetings over the past several years.

HARRIS: And the last one being, what do you think? MCCONNELL: I don't know the answer to that.

HARRIS: OK. Maybe you can get that answer to us also. Well, thank you very much.

I now recognize Mr. Tonko for five minutes.

TONKO: Thank you, Mr. Chair.

In this committee, we have spent a lot of time debating the appropriate role of government into the development of energy technologies. A Republican colleague seems steadfast in their result that anything beyond basic research whether it is applied research, demonstration or financing, must the government interference in the free market is somewhat of a picking winners and losers, and crowding our private investment.

However, this appears to only apply when aligning clean energy technologies and their commitment to these principles quickly disappears when it comes to supporting increasing taxpayer funds to develop technologies for the oil and gas sector.

That said, I am willing to acknowledge that there may be areas within fossil energy research space where a little government research could be helpful.

With that in mind, Ms. Mittal, your report includes some recommendations for research areas. Could you expand on that please and address why you think these areas are particularly well-suited for government involvement?

MITTAL: When we looked at gaps in research for oil shale, we heard from federal as well as state and academic researchers a consistent message that there are two areas in which there were gaps. One was that there was insufficient information -- and data on groundwater and surface water baseline information in the region that there was not enough information right now on the conditions of groundwater and surface water in the region. Therefore, that when the -- an oil shale industry developed, you will not know what the baseline conditions are so it will be impossible to determine what the impacts of the industry are. So we need to do more research and get good information on both quantity and quality impacts -- information on quantity and quality of the groundwater and surface water.

The other area is that we need to develop more information on how groundwater and surface water interacts with one another. And this will help develop models that will allow us to determine how contaminants are transported from groundwater to surface water and vice-versa, and that -- those are two areas that were identified for needing more federal research.

TONKO: Thank you very much.

And to our assistant secretary, the department made a research announcement regarding its work on methane hydrates. Can you please provide some detail on that and, in particular, discuss how it fits into what you would consider to be a right problem space for government research programs in fossil energy?

MCCONNELL: Well, in any kind of early emerging technologies, government assistance is required to help promote and stimulate industry involvement. A good example of that would have been in the early 1970's when hydraulic fracturing for natural gas actually began. And again, that wasn't just the government investing money, but it was a combination of government and industry partnering. And George Mitchell in the Woodlands a long, long time ago was very interested in moving forward, but needed some help. And the government and Mitchell Energies moved forward with those initial -- that work, and it's borne quite a bit of fruit since then.

I think methane hydrate is a good analogy to that situation. It was -- it is a unique and emerging type of technology in an industry for natural gas, conducted on the slopes of Alaska. And it also was a partnership between ConocoPhillips, the Japanese government as well as the Department of Energy. And I think any one of these emerging technologies early on, a good measure of industry interest is their willingness to cross-share and partner. And that's the way that kind of research can be conducted and be most beneficial.

We have the work done in Alaska. It was very successful. We were highly encouraged by the results we saw. And in any type of research program, it sets the baseline for what we hope will be continued work in that area and continued involvement that we can bring forward.

And again, in partnership with industry and -- and others that are willing to -- to partner in the effort, so like in any good strategic process, you do some things, you find out what you learn, and then maybe grow from there and we're certainly enthused about what we've seen.

TONKO: In terms of comparing that with the potential DOE role in developing technologies for other unconventionals such as oil shale, would you contrast that for us?

MCCONNELL: Well, I don't know that there's any contrasting, I think the most important thing we do at fossil, I believe, is to be very close to industries' interests and development so that we can stay close to their enthusiasm. And we talk a lot about technical recovery and then we talk about economic recovery. And I think industry is a far better gauge of what emerging technologies they would like to spend time on and actually develop.

And in the case of what you're describing, for us to find industry partners that are willing to do the cost-sharing, to be involved and cooperatively develop this research, what it does is it's a real bellwether for industries' level of enthusiasm at the time that they're involved and will stay very close to that.

TONKO: Thank you very much.

I yield back, Mr. Chairman.

HARRIS: Thank you very much. And I recognize the gentleman from California, Mr. Rohrabacher, for five minutes.

ROHRABACHER: Thank you very much.

All of the above, really we have a problem with that and I have a problem with that. And I just do not believe that the president has been forthright in discussing his energy policy with the Congress. However, and we've seen that in this committee where we have seen what appears to be a purposeful deployment of regulatory bodies to stop certain types of production especially fracking . It seems to be a -- it seems to be something that is actually greatly expanding the energy available to the United States, so that gives us some concern that isn't necessarily something you would be involved in.

But I think that we -- do you agree that we have reached a technological stage that we could become energy self-sufficient within a decade?

MCCONNELL: I wouldn't debate that with you, but I think it's really important that we have energy security, and it gets little different than energy independence, but maybe we're just making a fine point of a word, I don't know. I think it is important that we be energy-secure.

ROHRABACHER: But are -- but are we technologically capable of that now?

MCCONNELL: Well, I'll give you an example. And when we talked earlier about hydraulic fracturing , and I mentioned sustainability and, in fact, we've fracked a lot of wells for a lot of years. There's no question about that.

I think it's also fair to say that in our society today, there's a lot of questions about fracturing, about the impacts in local communities, et cetera, and it's not just issues associated with groundwater, but it also has to do with seismic effects, it also has to do with wastewater disposal, wastewater treatment -- all of the issues that are really important to sustainability. And...

ROHRABACHER: Do you think it also has to do with a mindset that is what is formerly described as Luddite mindset that has been beaten into kids' heads at our universities that a habitat for a squirrel is more important than energy for American homes?

MCCONNELL: I wouldn't subscribe to that. I -- I don't think that at all. As a matter of fact, I think it's really important that it do be deemed sustainable in a big part of our future, and that's what we're doing across...

ROHRABACHER: We don't take that anti-energy attitude as -- had some impact on the administration and the production of energy in our country.

MCCONNELL: I can't comment to that. I can tell you it hasn't had any effect on what we're doing at Fossil

Energy. ROHRABACHER: All right. I -- let me just know that we have had the ability in a number of areas that I have supported energy research into solar, for example, over the years. And it wasn't up until about a year and a half ago, there were no permits issued by the federal government to move forward with solar energy plans in the desert -- none.

And in fact, Mr. Chairman, I had to actually introduce legislation to sort of goose the system into letting people go on these vast stretches of desert that we have and set up a solar plant. And -- how many solar plants now have been issued permits now in the last year and a half?

MCCONNELL: I don't know the answer to that, sir.

ROHRABACHER: I -- I think it's six. But let's just note that we are way behind the curve because technology was there and has been there to try to build solar plant in the desert. Yet, up until a year and a half ago, there was zero solar plants in the desert. And you look back, and I think it's an over a value being placed on habitat for insects and lizards rather than electric power for the homes of human beings.

What about -- I'm going to get to methane hydrates. That's another one I supported earlier over the years. Has there been any progress with methane hydrates other than Alaska? There are methane hydrate potentials, for example, in the ocean.

MCCONNELL: There are indeed. And as part of the unconventional strategy going forward, we're doing some very early work in that to make assessments of resource and overall impact, yes.

ROHRABACHER: Has there been any assessment of resource is one thing development of technology is another? Has there been any technological steps forward in trying to utilize ocean-based methane hydrates?

MCCONNELL: We haven't conducted any demonstration projects if that's your question, no.

ROHRABACHER: All right. And one last note, for the amount of energy that is being produced and -- and consumed by the American people, the amount of research money that is spent by the federal government into that particular area, wouldn't you say that oil and gas actually produces a huge amount of energy that we consume and that is actually per amount of energy that -- that we use from that source the amount of research actually is less than in other areas?

MCCONNELL: Well, from our standpoint, we -- we recognize that both oil and gas as well as coal is an incredibly big part of our future. I think what we want to be sure we do is not fall into the trap of looking at how much we're using today and having that be equivalent to how much we're spending on research or out of the emerging technologies that we're spending our money on at the federal level as well as with industry is important in that regard. So, yes, I think it's a big part of our future and it will be a big part of fossil energy strategy.

ROHRABACHER: Thank you very much. And we just hope that the president is serious and it has reflected in -- in the policies that go through his administration about this idea of all of the above because America, nothing will be better for our economy than for us to quit sending that money overseas and spending it right here.

Thank you very much.

MCCONNELL: I couldn't agree with you more.

HARRIS: Thank you very much. The gentleman from New Mexico, Mr. Lujan, is recognized for five minutes.

LUJAN: Mr. Chairman, thank you very much.

Mr. Chairman, I was really encouraged when I read the hearing charter, Supporting American Jobs In The

Resources Technology. But I was a bit disappointed when reading through the charter and through the testimony that was filed with us, that I didn't see any mention of fuel production from algae or that we were going to be able to talk about the energy that could be produced from battery storage.

And I -- I say that, Mr. Chairman, because there's been some recent reports that have been put out that talk about the research and development that's taking place through the Department of Defense with unconventional energy production so that we can save soldiers' lives when we fully appreciate the amount of lives that have been lost through the transport of fuel that is developed from petro products or the weight of those batteries that they have to carry in those packs to be able to develop any generation or communication aspects.

But with that being said, Mr. Chairman, I still am encouraged at the conversation that we're having today and I hope that we can take that conversation up as well because it's an important one as we talked about all of the above opportunities through the expansion of research and development.

Pertaining to oil shale development and water constraints in the west, I appreciate the sensitivity that are being brought in that area coming from the high desert, although I have six beautiful ski areas in my district. You can imagine that the snow (inaudible) isn't always what it should be. And this year, as we talk about the re- adjudication of water from the Colorado and the way that it's going to impact the west, what that means to waterfalls, commerce, opportunities, food production in the west is something that I am very sensitive to.

And so, Ms. Mittal, (inaudible) from the southwest where water is so scarce, I'd appreciate you going into some more detail on the potential impact of oil shale development on water quality and on quantity, and how research and development might lead to other opportunities as we talk about the amount of water that is necessary in these areas. MITTAL: One of the things that our 2010 report noted was that right now it's very difficult to assess or measure the quantity impacts of oil shale development, and that's for three primary reasons. One is that we don't have a good sense of what the baseline conditions of groundwater and surface water is, as I mentioned earlier.

The other issue is that there's a lot of uncertainty related to the technology, so we don't know how much water is actually going to be used by the technology. It's very, very uncertain.

And the third issue is that there's a lot of uncertainties related to climate change, how much water is going to be needed in the future in that region from the growing population, from compacts. There are water compacts that are going to require certain demands. They are going to place certain demands on the water in the Colorado River region. There is going to be other uses of water. So there's a lot of uncertainties right now that make it very difficult to actually quantify the impacts of oil shale development on water resources in that area.

LUJAN: I appreciate that. And although myself and my colleagues may not agree on what's causing some of the drought conditions that we're experiencing, the reality is that I have ranchers back in New Mexico that have sold off entire herds because there's less water. And I hope that we can all agree on the reality that there's less water out there, and that we could be mindful of that.

Mr. McConnell, one thing that I -- I don't believe that we do a good enough job of is explaining to the American people that there is a difference between oil shale and shale oil. But I want to concentrate my efforts on oil shale.

The way that I underbanked it is it's a rock and that there's an element in there, if I pronounce it correctly, carrageen, that has to be heated up. So we have to heat this rock up that's down below. How would you propose that we heat that rock up? You know, does it take a long match or, you know, how are we able to reach down there to heat that rock up so we can get this energy coming out of that? What kind of heat do we need?

MCCONNELL: Well, most of the technologies that are looked at, and again there are a suite of

technologies that can be employed. But it's really an in situ process in which you need to get the fuel source into that area to be able to do that heating as we described it.

There are a number of different technologies that are being looked at, but again, this is a very early emerging industry. And I wouldn't say there's a business as usual case for exactly what you're describing.

LUJAN: I appreciate that.

Mr. Chairman, thank you very much, and I look forward to the next round of questions the next time. Thank you. HARRIS: Thank you.

I now recognize the other gentleman from Maryland, Mr. Bartlett, for five minutes.

BARTLETT: Thank you very much.

I was reading the other day a report that indicated that the gas in the Marcellus shale was equivalent of 3.4 billion barrels of oil. Is that the number that you've heard? Is that in the ballpark?

MCCONNELL: Equivalencies sometimes can be tricky, but I -- I would -- I would agree with what you're talking about, yes.

BARTLETT: Underlying the Marcellus shale is a bigger footprint of Utica shale, which contains oil. The same report said that there was 4.5 billion barrels of oil in the Utica shale. That's the number that you think is in the ballpark?

MCCONNELL: Large number, yes, sir.

BARTLETT: OK. Every day, the world uses 84 million barrels of oil. That means in 12 days, the world uses a billion barrels of oil. So this 4.5 billion barrels of oil, which you said was huge, will last the world 52 days. It doesn't seem to me to be a really big deal, just 52 days.

Methane hydrates have been mentioned. There are potentially huge energy stores in methane hydrates. Let me mention something else where there are huge potential energy resources -- that's the tides. The moon list a whole (inaudible) ocean, what, two, three, four feet a day.

I carry two buckets of water. That's heavy. That's an awful lot of energy. Why aren't we getting more energy out of the tides? It's for the same reason we're not getting any energy much of any energy out of methane hydrates because it's very dispersed. It's got to be concentrated before you can really capitalize on it. I think it will be a long time before we get much energy out of methane hydrates, although the potential energy there, I think exceeds most other energy sources, does it not? It's a potentially huge energy resource in methane hydrates.

The oil shales, 1.5 trillion barrels of potentially recoverable. A shale oil company has tried twice there, and they have given up oil at $80 a barrel. It was not high enough that was recoverable. But let's imagine that we can get 1.5 trillion barrels of oil from the oil shales.

You know, it's awfully easy when you're dealing with big numbers to slip a zero or two, and so I want you to check your -- the numbers with me. Is the 1,500 billion 1.5 trillion?

MCCONNELL: I'm going to take your word for it.

(LAUGHTER) I'm not quite sharp (inaudible) your question, sir.

BARTLETT: I think that 1,500 billion is a 1.5 trillion. And if that's true and I now do some arithmetic, I find that if we're able to develop this 1.5 trillion barrels of oil from the oil shales that it will last the world I think 40 or 50 years.

A little over four years ago, I led a CODEL to China. Nine of us went to talk about energy, and the Chinese began their discussion of energy, they're talking about post oil. Clearly, there will be a post oil world.

The first prominent person I know up to recognize that was Hyman Rickover and if you want to read a very fascinating speech, it was lost for a number of years. Just Google for Rickover energy speech and his speech given the 15th day of May, 1957 at St. Paul, Minnesota, will come up. And he made a very interesting observation.

He said, "In the 8,000-year recorded history of man, the age of oil would be but a blip." He had no idea how long the age of oil would last. Now, we know, the age of oil is going to last about 300 years. We're 150 years into the age of oil. And we're not running out of oil, by the way. We're running out of is our ability to produce it as fast as we would like to -- to use it.

Way more oil out there, two big pumps and all the oil that we have pumped. But the challenge is pumping it as fast as we would like it -- as we would like to -- to use it.

Now, you know, if we develop all of that oil and it last us just 50 years, I've got great grandkids. What are they going to do in 50 years?

Thank you very much, Mr. Chairman. I yield back.

HARRIS: Thank you very much.

They are calling us for votes, but I think we can get a couple more members' questions in before we have to go. I'll now recognize Mr. McNerney, gentleman from California, for five minutes.

MCNERNEY: Thank you, Mr. Chairman.

Mr. McConnell, how would you compare hydrofracking technology to oil shale technology both in terms of the economics and impacts on local environment?

MCCONNELL: Well, maybe, first of all, think about it in terms of where we are in the technical scale or they're really -- it's often called the TRL, or technical readiness, OK.

In terms of -- in terms of hydraulic fracturing and what's going on in the Marcellus and other areas across the country, that technology has been noted as -- it's been performed for a number of years, recently come into a lot of prominence because of the high cost of natural gas. Just three, four years ago, we are all very concerned that we are, as a nation, going to have to import natural gas, and we're able to take this technology, put it in play and utilize it.

And from the standpoint of the Marcellus and many of the numbers that you quoted about availability of resources, et cetera, oftentimes, the first call on that is considered to be technically recoverable hydrocarbon, but it's not really technically recoverable but it's really economically recoverable. And so we've got vast quantities of additional hydrocarbon resource that with the price points being what they need to be and with the technology evolving to where it can go, it really then opens up large additional volumes.

The hydraulic fracturing activity has been performed for years and years but, of course, we continue to look at the impacts of it not just from the standpoint of the fracturing itself, but the wastewater disposal, the seismic activity, all of the other things that many of the people in our country are concerned about.

Contrast that with the -- with the oil shale that you mentioned, it's much, much less far along on its technical scale of capabilities. A lot of the initial resource assessments have been performed, the volumes and the capabilities are vast.

If you look at where we are today in terms of crude oil and the capacity that we have in this country in our domestic imports of it, I know that industry will continue to look at it as a next best opportunity to move

forward to, but today, it doesn't have economic recoverability. And -- and -- and because of that, there hasn't been a draw by industry at this point to -- to get into it in the same way that we've done with hydraulic fracturing for natural gas.

MCNERNEY: Well, thank you. Would you comment on energy return on investments as applied to oil shale? Are you familiar with that term?

MCCONNELL: Well, I -- I can give you just a statistic from the National Energy Technology Laboratory. Over the past 20 years, we've done some analysis for every dollar that the taxpayers put in, we've got about $13 of return back in terms of jobs, and economic impact, and other things that have -- that have contributed to our economy.

The statistics that I quoted earlier are the rather modest investment that was done in hydraulic fracturing for natural gas today is paying enormous dividends, and we're drawing that in the American chemical industry. And we'll likely to be using more and more natural gas and electric power generation, et cetera, as we move forward.

In the oil shale today, a lot of the initial work that we're doing, again in assessments and looking at the potential for it, I don't know that we're far enough along to actually put a return on investment just yet.

MCNERNEY: Well, by energy return on investment, I mean energy in versus energy out. So energy out is enumerator, energy in is the denominator. If you have any comment on that, or Ms. Mittal, if you have a comment on that?

MITTAL: We -- we didn't look at the actual amount of energy. What we were told is that it does require a lot of energy especially the in situ process because you have to hit the rock for large periods of time at a -- to very high temperatures. It is a very high energy- intensive process.

MCNERNEY: So it's likely to have a small energy return on investment in terms of the way I just defined it?

MITTAL: It could, but we don't have the actual numbers.

MCNERNEY: OK.

Thank you, Mr. Chairman. I'll yield back.

HARRIS: Thank you very much.

I recognize the chairman of the committee, gentleman from Texas, Mr. Hall.

HALL: Mr. Chairman, I thank you.

And I'm really little confused right now. I heard something that really sounded good to me that one of our leaders said this country needs an all out, all of the above strategy that develops every available source of American energy. Of course, I jumped up and down, clapped my hand, reread it, listened to it, say it one more time. But I found it was Mr. Obama that said that in the State of the Union speech.

And other than prior energy, it's probably the most important word in the dictionary to any youngster that's in high school or early college right now. And it's very difficult to square that statement with administration's actions. For example, a budget proposal is to eliminate a $50 million R&D program aimed at expanding safe production of oil and gas. This program, which I created in the Energy Policy Act of 2005, several presidents have tried to knock it out, supports development of next-generation technology's importance of ensuring domestic production of oil and gas is maintained and even increased. It was simple.

We knew the energy was there, but we couldn't get it to the top of the water. We created to universities

the technology created the same energy that they're going to get for us by giving us the technology to get it. It's an easy way to get technology without pledging or paying out money direct here too. It was a deal and it's worked. I don't -- I don't understand why anybody wants to knock it out (inaudible) the program was highlighted by the Department of Energy's own Advisory Board as the effective program. It should be enhanced and supported.

I really don't -- Mr. McConnell, if the president really wants to identify every single way to lower gas prices and increase energy production over the long-term, why is he trying to eliminate R&D program?

MCCONNELL: I don't believe he is trying to eliminate the R&D program. HALL: What's he trying to do then? Tell me, explain to me. I don't understand that. Where do you get that?

MCCONNELL: What -- what we're trying to do is take the resources that we've got available in -- with the fiscal means that we have available. And one of the things I said when I took this job is I do the best we could to get the most impact with the resources we had available to us, and that's what we're doing.

HALL: You've got a lot of resources up in ANWR or not. All of you say don't drill on little ANWR. Sir, they're just 19 million acres in little ANWR. All we want to drill on is 2,000 acres. Maybe 40 years of energy there.

How in the world can you square what you're testifying to here, and you know you're under oath right now, don't you?

MCCONNELL: Yes, sir, I do.

HALL: Well, then go ahead and explain to me. Just note for the record it's State of the Union speech, the president said and I quote, "It was public research dollars that helped developed the technologies to extract all these natural gas out of shale rock." And it's troubling that he is suggesting the federal government made hydraulic fracturing possible while the same time trying to kill R&D within the same program that he said is (inaudible) for the current oil and gas boom.

This is a program that's working, that has worked with several universities and is paying off. Why would anybody want to knock it out?

And I say this in deference to your president, my president tried to knock it out, too -- President Bush -- before he left office. We had a vote on the floor overwhelmingly, they knew this program was working. I don't understand why anybody want to knock out something that's working when we have the greatest need in the world for more energy.

MCCONNELL: I can't -- I can't comment on what you're saying in terms of giving you a reason for what other people may view of how people want to see something go down. I guess, what I will say is that the research and the focus in the areas that we've identified in hydraulic fracturing to continue that research, to -- to put in a budget request for this year, we're enthused about it and we'll continue to work hard at all of the things that you're talking about using the resources that we've got available in -- in a manner in which we can most effectively employ.

HALL: Well, your views on hydraulic fracturing has been turned back and you spare blinded witness after witness after witness even your own witnesses, the EPA's witness have said things and admitted that what they're saying about fracturing and the danger is doing to drinking water. You had to go all the way to Wyoming to kind of drag up something that could hit fracturing. I don't understand that. Actually, I'll just say that, for the record, that in the State of the Union speech, the president said it was public research dollars that helped developed the technology to extract all the natural gas out of shale rock. It's very troubling that he is suggesting the federal government made hydraulic fracturing possible while the same time trying to kill R&D with the same program that he says is created for the current oil and gas boom. How do you -- how do you react to that -- his campaign in one way and saying something and doing something else?

MCCONNELL: Federal research dollars originally back in the 70's were leveraged with industry enthusiasm. George Mitchell in the Woodlands and the -- the work that was done within industry and, in fact, hydraulic fracturing was pioneered by the Department of Energy's work along with industry.

HALL: Thank you. If it is a different Department of Energy and what you folks are running over there now though. I yield back my time.

HARRIS: Thank you very much, Mr. Chairman.

The gentlelady from California, Ms. Woolsey, is very patient. We're going to recognize her and then we're going to walk fast over to vote.

WOOLSEY: Right.

HARRIS: Thank you.

WOOLSEY: You can answer this question, but my question is, well, he laughed. I can't imagine why I love our chairman so much after that -- that group of questions. You can answer that because you don't know, but we just think he's great, but I'm -- not today, I don't.

Mr. McConnell, our -- our colleagues as you heard today and over time have been arguing that more taxpayer resources need to be transferred from work on emerging alternative energy technologies -- into technology development for oil and gas.

So regardless on one's priorities in that regard, there is such a question about the relative impact of limited federal dollars in all of these sectors, and whether a major increase in oil and gas research funding translates into real benefits for the industry or consumers. So what happens if we increase the oil and gas research programs? Will it be a big or a small improvement? And is oil and gas industry actually beating down your door asking for more research money? And where do we get the biggest bang for our buck on this?

MCCONNELL: Well, I think that's a great question because really what it does is it speaks to the pulse in the industry and what industry is looking at. I think the signals that come from the federal government in terms of funding, willingness to support activities, and focus on research that industry is interested in, they get signals from budget, but they also get signals from the capabilities and competencies that exist within the Department of Energy.

We have received a number of enthusiastic support signals from industry. Those in the natural gas industry, the leaders in those industries are incredibly driven by wanting to ensure that sustainable processes for this, not just in the seismic or the hydraulic fracturing , but in the wastewater disposal, in the seismic impacts, in the communities, they all want this to be a sustainable long-term industry.

And -- and the ability for us at the Department of Energy to work with the Department of Interior, to work with EPA from an interagency standpoint, to do things going forward in a sensible manner so that industry can have the confidence that this administration is going to move it forward in a confident manner to make it a sustainable industry.

I think the president has been pretty clear about the fact that he wants that to happen. He's certainly been clear to us at the Department of Energy what we're supposed to do.

WOOLSEY: So what is the Department of Energy thinking about drilling and exploration for gas and oil off of, for example, the Northern California coast, which I represent? That should be a sanctuary. And probably will never be drilled, but if it was, it would take all kinds of expensive research to -- to make any of these worthwhile.

But is there -- is there any way that we can prove that that isn't worth the pennies we would -- well, the thousands of dollars we would -- millions -- invest in order to get pennies' worth of energy?

MCCONNELL: We don't have any plans to do either at this point. That's not on our short-term strategic plan. And the -- the focus that we have with the resources we have is not -- it's not oriented in that area.

WOOLSEY: OK. Thank you. And I think because of that, we're -- I'm going to yield back so we can go vote.

Thank you so much.

HARRIS: Thank you very much.

I want to thank the panel for the valuable testimony, the members for the questions, the members of the committee may have additional questions for you and we'll ask you to respond to those in writing. The record will remain open for two weeks for additional comments from members.

I'm going to dismiss the first panel. We will recess until five minutes after the last vote, which should be about 20 minutes from now, to go ahead with the second panel. Thank you very much to the first panel for being with us this morning.

The committee stands in recess.

(RECESS)

HARRIS: Thank you very much.

I want to thank the second panel for your patience with us and I will call the committee to order.

The first witness on the second panel is Ms. Samantha Mary Julian, director of the Office of Energy Development for the state of Utah. Previously she served as the energy and natural resources cluster director for the Governor's Office of Economic Development.

Ms. Julian is responsible for the promotion of Utah's state energy policy, coordinating with the governor's energy advisor to implement the governor's energy goals and objectives seeking federal grants and participating in federal programs and making administrative rules.

Our next witness is Mr. Jim Andersen, president and CEO, U.S. Seismic Systems. Mr. Andersen began his career as an engineering officer in U.S. Navy nuclear submarines and went on to hold a variety of engineering and senior management positions in engineering intensive high technology companies including Westinghouse, Whitehall/Hydroscience, Litton Industries, and Northrop Grumman.

Our third witness is Mr. Cameron Todd, CEO of U.S. Oil Sands Inc. Prior to joining U.S. Oil Sands, Mr. Todd worked five years with Connacher Oil and Gas Limited where he held the executive role of senior vice president, operations, refining and marketing.

He has had an extensive and successful career in the domestic and international oil and gas industry with over 30 years of experience in all facets of the business.

Our final witness on the second panel is Mr. Tony Dammer, member, board of directors, National Oil Shale Association. Mr. Dammer is an independent consultant specializing in oil shale and other unconventional fuels development.

From September 2008 to February 2012 he was senior vice president of Red Leaf Resources, a Utah-based oil shale technology and resource development company. He joined Red Leaf Resources after 28 years of federal service in the U.S. Department of Energy Office of Naval Petroleum and Oil Share Reserves. For the last 20 of those years he served as the director of the office responsible for the management and operation of six reserves in California, Wyoming, Colorado, and Utah.

As our witnesses should know, spoken testimony is limited to five minutes after which the members of the committee will have five minutes each to ask questions.

I now recognize our first witness on the second panel, Ms. Julian, to present her testimony.

JULIAN: Thank you Chairman Harris, Ranking Member Tonko, and members of the committee. Utah is the epicenter of unconventional fuel development for the United States. Our office is created in 2011 with Utah legislature seeing that there needed to be an all of the above approach to energy development.

We are the voice for energy development responsibly through economic development and policy.

I'm not here today to say that oil shale or oil sands will drop prices at the pump or immediately solve the country's dependence on foreign oil. I'm here to say that despite the lack of efforts of some federal agencies the unconventional energy industry is happening in Utah today and deserves support.

These developments are important. As the federal government needs to understand, these industries are commercially viable. Operators seek public land certainty and federal policy consistency.

Special interest groups often attack these industries claiming massive use of waiting that otherwise is unavailable in our state.

In Utah water is available for oil shale and oil sands development through existing water rights in general market system. Water is owned by the state and is in trust of its citizens. It is subject to water appropriation system and managed by the state engineer. The process has been in place for over 100 years.

Utah also manages its lands to promote responsible development. It is the main source of our funding for educational system and our peoples and educators count on it.

As any operator will tell you, whether it's shale, sands, gas, oil, coal, working with the state is much more streamlined and consistently regulated. Our oil sands technology zone is a way for Utah to lead an innovative and research and development efforts.

These are rent-free lease on a pre-permitted site adjacent to sands mine allowing proof of concept to remove technology risk for capital providers.

Our alternative energy development incentive encourages responsible development. Again, to fund our textbooks, our classrooms, and our students. It is a post-performance incentive for oil shale, sands, utility-scale renewable energy and nuclear.

Governor Herbert's 10-year energy plan is the state's path forward for responsible energy development. It is about all -- all approach diversified resources.

So how could the federal government contribute to expand production through R&D?

The most consequential assistance the federal government could provide -- and I repeat, the most consequential assistance the government could provide, is to assist the BLM in consistent -- to be consistent with the Energy Policy Act of 2005. Secondly, current DOE procurement favors federal R&D providers. That's national labs over external providers of industry and universities.

If funding decisions were instead calculated proportionally on GDP or ranking of energy production, Utah would increase from $3.5 million in funding to $60 million or almost 20 fold.

Proactive work by the BLM and DOE would positively affect our energy independence, security, and decrease our -- our dependence on foreign oil.

We truly appreciate the support of Congress to make unconventional energy an R&D priority and help

federal agencies understand that taking steps to ensure public lands certainty and federal policy consistency would create an energy game changer.

Thank you for the opportunity to speak today. I look forward to your questions.

HARRIS: Thank you very much.

I now recognize Mr. Andersen for five minutes to present his testimony.

ANDERSEN: Thank you very much, Chairman Harris, and members of the subcommittee.

I've a little bit different presentation and I'm going to show you some charts. And hopefully this technology will work right.

So, what I'm here to talk about is we've developed a revolutionary sensing technology that we believe will solve many of the environmental problems associated with unconventional oil and gas development primarily for -- hydrofracking .

The sensors are all fiber optic, no electronics or copper in the well, and they replace the 50-old -- 50-year-old sensor technology that's been used in the industry that really isn't up to speed with these new extraction techniques. And I'll talk a little bit about that.

Not to go in a lot of technical mumbo jumbo, just a real simple how does it work, you know, we have two things. We have a box we call the optical interrogator, all the smarts were in that box and lasers, electronics and all that. And then we have a fiber optic cable which we drop down the well.

The fiber optic cable has no electronics, no circuit boards or any power that goes down the well. That makes it very reliable and it's expensive.

How it works is we send laser-like pulse down the cable. When the reflection comes back the information we're looking at is in that reflected pulse. Very, very simple. So just so you don't think that this is a, you know, smoke and mirrors, I -- in my prior life I used to run a division of Litton Industries and -- responsible for fiber optics there and we put the fiber optic sensor system on all the Virginia-class submarines. Contract was valued over $450 million, heavy electronics inside the submarine, fiber optic sensors outside the hull, and it turned out to be a very, very reliable system. It's now on the order of a dozen submarines and reliability record is outstanding.

A lot of the team members that used to work for me at Litton are now at my company and we commercialized it, made it less expensive and more reliable for commercial applications. And also we built our own I.P. but we've also licensed some of the technology from Northrop Grumman.

So here's our premise. The existing equipment for frac monitoring is just too expensive and it doesn't -- the performance is marginal.

And when I say expensive I use an example that, you know, to drill a well for -- produce shale you need -- you need to -- it cost about $5 million. And installing sensors and the cost of sensor is another $5 million. People just don't do it. And plus the performance is poor so there's really no motivation.

We also believe that, you know, it's not just the sensing system but how much it cost to install it. And the main driver to that is the cost of drilling wells to install it. We've been working with the Department of Energy and they've done some studies and it showed we have very sensitive sensors like we do.

Instead of going down and drilling down to, you know, 5,000 or 6,000 feet you drive 500 or 600 feet. Great savings on installation also. We're trying to make this inexpensive so everybody will do it.

You know, frac monitoring, basically, it just -- what you end up with, instead of blindly pumping in fluid at high pressure and, you know, wondering if you're fracturing, you monitor with sensors in the ground and

you do the stages. You could see they are different colors. You know, block off a certain section, you frac it and do the next one, and you see what the extent of the fractures are. So you have a record and if it starts going to places where you don't want you could stop it.

We believe 100 percent monitoring will solve the problems. And it's not just us. You know, the secretary of energy advisory board came out with recommendations and they said, you know, you should have stories (ph) carried out to ensure fracturing growth is limited to where you want it to occur. And, you know, they also said, we need additional studies to talk about shale gas leaking to water wells. We're also working with FTS international, a large company in the U.S. that does fracking and developing systems with 100 percent monitoring.

Here are -- I'll just talk about well casing leak a little bit. You know, it's -- it's an important issue. You know, I -- my feeling is -- is that, you know, it's designed to prevent communication between layers, but, you know, these things happen.

And the next chart will show that, you know, that from a gas migration people talk about it as like a new thing. It's been around for over a decade. You know, there are studies in Canada that 45 percent of the wells are leaking.

So mu thought is -- is rather than, you know, denying or saying does this work, happen or not, you know, we have technology that's cheap insurance and you could check for it and make sure that if it does happen you could fix it.

So, you know, summing up, you now, there are several -- the major areas in environmental concern that can be minimized via monitoring during and after the fracking process. This includes a chemical contamination of the subsurface aquifers, gas migration, and even induced seismicity. And we've developed a revolutionary fiber optic sensing technology to detect the problems and such that you could do a remediation before there are significant environmental damage.

And I thank you and I welcome your questions.

HARRIS: Thank you very much, Mr. Andersen. That's a -- some fascinating technology.

I now recognize our third witness, Mr. Todd, to present his testimony.

TODD: Mr. Chairman and members of the committee, I thank you for the opportunity to address you today on vital matters of energy, environment and the economy.

My name is Cameron Todd and I'm the chief executive officer of U.S. Oil Sands, a public company with a unique proven technology for the development of the U.S. extensive oil sand resources.

I'm here today to explain that development of these valuable resources is not only economically viable and technologically proven, but can also be done in in an environmentally responsible manner with significant economic benefit for the nation.

U.S. Oil Sands has a proprietary technology using a renewable bio-solvent to extract heavy oil from oil sand without the need for tailings ponds. This breakthrough is expected to revolutionize the development of oil sands particularly in the United States where in spite of the extensive resources there have been no commercial extraction projects to date.

The solvent that we use is non-toxic and biodegradable, made from citrus peels.

Over the last 10 years our company has exhaustively tested and piloted our process. It greatly simplifies current approaches to development and allows them to be built on a smaller scale using modular phases.

Our company has been active in Utah for more than seven years and invested more than $20 million developing the technology, acquiring lands, doing environmental reviews, in design, and initiating

construction. Beginning later next year we expect to complete construction and initiate production on the first commercial oil sands extraction project in the U.S. By that time we will have invested more than $50 million dollars and employed hundreds of people.

Our process demonstrates the best environmental performance of any oil sand development to date. We recovered 96 percent of the bitumen processed, the highest of any project.

Since we produce clean sand without tailings ponds, we reclaim the mined area as we go.

The process recycles 95 percent of the water used. And we use half the water of other projects. We use less than a third of the amount of energy and we have a lower greenhouse gas footprint than any project to date.

Our first project is modest, producing 2,000 barrels a day. Over the next 10 years, assuming fair access to lands, our company has expansion plans for 50,000 barrels per day.

Over the project life we expect to generate over 60,000 person years of direct employment. High quality, permanent jobs. And they come at a time when the American economy has been hit with the worst recession in 75 years.

We expect to pay more than $9 billion in taxes and royalties and contribute more than $20 billion to the economy. And we will be saving the import of over $50 billion worth of foreign oil.

And while we may be first, U.S. Oil Sands is not alone. Other companies are pursuing exciting technologies and new and environmentally-responsible and economically-attractive projects are coming.

So what is standing in the way?

In short, federal policy. Even though most resources are on federal lands, it's no accident that 100 percent of our company, U.S. Oil Sands, leases are on state lands. The state is strongly supportive while the BLM essentially has a de facto moratorium on leasing and approval. This, in spite of the instructions of Congress in the Energy Policy Act of 2005.

The BLM is further proposing to reduce the lands available for development by nearly 80 percent because of their belief that commercial technologies do not exist and that only massive large scale development would occur.

It's not that these lands are conservation areas where development is prohibited. Quite the contrary, as conventional oil and gas, forestry, grazing, and mining are allowed subject to normal approvals. It is only oil sand and oil shale leasing that is restricted. Developers are not asking for unfettered access. Every project would still be subject to extensive scrutiny and approval just as are conventional projects. We've already shown that small scale phase development is possible, and that world-class environmentally-responsible technologies are proven.

In conclusion, the oil sand resources of the western states are large and accessible. U.S. Oil Sands has developed a process to unlock these valuable resources in an environmentally-superior manner.

We expect our project on state lands to be in production next year. The process uses far less water, energy, surface area, and generates less greenhouse gas than any project to date. It generates clean tailings, requires no tailings ponds.

Our company expects to generate tens of thousands of man-years of employment, billions of dollars of tax revenue, and contribute tens of billions of dollars to the economy. In exchange we ask for no special treatment, no fuel subsidies and no grants. We simply suggest that Congress permit these developments on federal lands as mandated in the Energy Policy Act.

We at U.S. Oil Sands intend to implement our game-changing approach with or without access to federal

lands. We have identified large resources on state lands and will develop them in concert with the state.

We will apply our approach to resources in Canada and other parts of the world where large deposits exist. It would be a shame if the people of the U.S. were not able to enjoy the benefits of development of their own extensive resources, but such a great technology and such a win-win-win result with respect to energy, the economy and the environment, is too good to not to be applied to solve the energy challenges of the world.

Thank you.

HARRIS: Thank you very much. And I -- our final witness, Mr. Dammer, is now recognized for five minutes to present his testimony.

DAMMER: Thank you, Mr. Chairman and members of the committee. I thank you for the opportunity to appear today. I've worked on and off in the oil shale business for several decades. They kicked me out of Colorado in 1982 when Colony folded. So I have -- have -- I've seen the ups and downs of the industry.

As been pointed out oil shale development has had a long and torturous history which would take hours to relate so I won't go over that in any detail here.

But in 1982 Exxon abruptly closed its doors to the Colony project and without warning left the scene. That was referred to as "Black Sunday."

So the industry has been characterized by boom and bust. But not until almost 25 years later, the passage of EPACT 05, the Energy Policy Act of '05, the government demonstrated any appreciable interest in the oil shale resource. High price of crude oil coupled with concerns regarding energy geopolitics and increased dependence on imported oil from unfriendly and unstable sources focused attention back on oil shale.

Today there are several companies engaged in oil shale research and development in the United States in varying degrees of development. Some are small, their work limited to the laboratory. Others, such as Shell, Exxon, AMSO, Red Leaf, TOTAL, Shale Tech International -- just to name a few -- are actively testing their technologies in various stages of development in the field.

The secure fuels and domestic report -- resources report published by the U.S. Department of Energy summarizes those technologies of 32 separate companies working in oil shale and tar sands development in the U.S. Most are oil -- oil shale development companies and their profit -- and their profiles are summarized in www dot unconventionalfuels dot com.

I have by no means covered the technical landscape regarding oil shale development and I regret that time does not allow a comprehensive review of all the technologies.

Advances that have taken place in the last five years are very large. Suffice to say that clean, safe, and sustainable technologies are being advanced to develop oil shale resources.

The passage of the Energy Policy Act of 2005 provided impetus for this program.

We talked a little bit about some of the key technical challenges that present us. We talked a little bit about water. I have not read anything from any oil shale company that believes that they will exceed one barrel of water per three barrels of oil shale produced.

A lot of the industries are water producers. I think there's a lot more known about water utilization than is generally understood by the -- the -- the public.

One of the greatest concerns that has been -- has been the requirement of water in development in the scarce area, I think that's been overstated. Of far greater concern in the technical challenges faced by oil shale -- the oil shale industry are policy and regulatory inconsistency and uncertainty.

Since the passage of the Energy Policy Act of 2005, the Department of the Interior has reversed itself on the initial programmatic environmental impact statement and changed the associated resource development plans. As we all know oil shale regulations were overturned in 2008.

The Energy Policy Act, however, was a comprehensive piece of legislation designed not only to prepare for R&D and leasing regulations but also to plan for the orderly development of oil shale and tar sands in what is essentially the Green River Formation of Colorado, Utah, and Wyoming. That planning responsibility was assigned to the U.S. Department of Energy under Sections 369 (h) and (i).

Section 369 (h) of that act directed the secretary of energy, in cooperation with the secretary of the interior and secretary of defense along with the governors of affected states to establish a task force to develop a plan to accelerate the commercial development of strategic unconventional fuels and initiate a partnership with Alberta and nations with oil shale resources. The task force report, with recommendations, was completed and forwarded to the president and the Congress in 2007. Section (i) of the act directed the Office of Petroleum Reserves to coordinate and create and implement the implementation of a commercial strategic fuels program.

If these sections of the act were implemented and the unconventional fuels development program was initiated within DOE, uncertainty and inconsistency in policy would not exist today. Unfortunately, there is little evidence that the recommendations of the task force or the establishment of an unconventional fuels program has occurred. My strong recommendation would be to implement the law as it was stated in the Energy Policy Act of 2005.

Mr. Chairman and members of the committee, thank you once again. I would be pleased to answer any questions.

HARRIS: Thank you very much for your testimony. And we'll now begin the first round of questioning.

I recognize myself for five minutes.

Mr. Andersen, let me just ask you, in your technology was there any government involvement in the development of the technology?

ANDERSEN: Well the -- I talked about initially there were some government involvement in the technology that was put on the submarine...

HARRIS: Right.

ANDERSEN: ..., but we took that and developed our own intellectual property, our own funding. We built some systems for the government, but the R&D for those was all internal.

HARRIS: OK.

And did you ever request any help from the Department of Energy or, you know, sought some of the funds that -- from some of the programs we have been talking about today?

ANDERSEN: No, we haven't.

HARRIS: OK.

Now, Mr. Dammer, you -- your testimony -- I want to thank you for your testimony.

You know, it was a little disturbing to me that, you know, the Department of Energy, you know, Mr. McConnell kind of admits that, you know, oil shale and oil sands are part of all the above, but they're not spending any money on them. They're not really doing anything.

The -- the task force that you mentioned that produce that -- those -- that report in 2007 did outline some impediments that are occurring or constraints that -- that exist on development of oil shale. In your opinion is the DOE or BLM really doing enough or doing anything to implement the recommendation of that task force or basically is it all almost ground to a halt?

DAMMER: I can't really speak to what the Department of Interior is doing. I -- I'm -- let me correct that. I -- I know exactly what they're doing and they really are on the regulatory side of this and we've sort of jumped the gun on regulations because as you've heard today you have people questioning water usage. You have -- the carrying capacity of the Western Energy Corridor, social economic concerns.

Those are the concerns that needed to be addressed and addressed in a plan. And that was -- what was the purpose of Section 369 (h) and (i) was intended to do. They weren't intended to promulgate new regulations that's the responsibility of the DOI. It was to put together a plan to reasonably develop these resources and these resources stretch from Wyoming down through Colorado and they do broach the Green River and the Colorado River.

So, there's all kinds of hydrologic issues. Incidentally some of which have been answered far better than the testimony by GAO...

(CROSSTALK)

HARRIS: Let me ask you -- so -- because my understanding is that that -- the oil shale, is it true that if you look at oil shale resources that the United States really has more than the entire world's reserves if we could unlock oil shale?

DAMMER: Many times over.

HARRIS: OK. That's what I -- that's what I thought. So the -- you know, it's an interesting all of the above strategy, it's all I can tell you.

I want you to directly comment on the use of water because in my understanding the GAO report suggests that it -- it takes five barrels of water to produce one barrel of oil. You say that -- that more likely that it's one barrel of water for three barrels of oil. Is that because of advances in technology or -- or the feeling that we can -- we can make those advances and that's our goal.

DAMMER: Well, I -- I think the genesis of that statement is that companies like Shell, Exxon, TOTAL, Red Leaf, have been out on the ground for some period of time. A number of those companies have pilot projects.

In the case of Red Leaf we run a pilot project so we know exactly how much water we were using and we were using, actually, less than one barrel of water per barrel of oil sale produced. And -- and most of that water was for domestic consumption and -- and dust control. So there's -- there's -- there's a gap between what's going on in the industry and what's being talked about by these various reports and what not.

HARRIS: OK.

Thank you very much. And as you said -- I mean, the purpose of the Energy Policy Act was trying to answer some of those questions.

Mr. Todd, you -- you know, thank you for all the work the company has done. Just out of curiosity, were there -- because you say, you know, you don't really want any loans or programs or grants or whatever and that's kind of too bad because I think the money in your company would be much better than Solyndra for instance. Probably much better spent.

What is the -- the price per barrel that is going to cost you -- that ultimately would -- when you begin this production can you give us an idea about what the price per barrel producing is from the oil sands using your technology?

TODD: We estimate our operating cost at under $30 a barrel and we estimate the economic limit to be about $50 a barrel price to -- to -- to allow it to go ahead.

HARRIS: So even at today's relatively -- I hate to say relatively depressed price of Midwest oil compared to the world, but, you know, roughly $97, $96 a barrel, whatever it was in the last few days, it's -- it's economically -- again, the Department of energy testified that it has to be economically viable and clearly that's economically viable in today's oil market.

TODD: Absolutely. Because one of the problems we have in oil sand side in the federal level is -- is to lump oil sand and oil shale together. They're different resources, they're both very large, they both occur in the western states. That's about...

(CROSSTALK)

HARRIS: And they both start with oil.

TODD: But -- but -- but the fact is that the technologies of -- of developing oil sand are -- have been well at play. Our company has a unique (inaudible) in Canada. We're -- we're -- we've got 2 million barrels a day. It's hardly unconventional anymore.

HARRIS: Yes, I know. Thank you very much and I will probably in the second round, but I want to recognize Mr. Tonko for five minutes.

TONKO: Thank you, Mr. Chair.

Mr. Dammer, the -- since oil shale companies have secured thousands of acres of oil shale resources in Utah and have apparently secured funding to move forward with a commercial oil shale development program on these lands, why do you think it necessary for the federal government to make millions of acres of federal lands available for the commercial developments since, A, large amounts of federal lands have already been available for oil shale development; B, millions of acres of oil shale resources in the west are already in the hands of private industry, none of which to date have been commercially developed; and, C, it seems that ample oil shale resources have been acquired to move forward with the commercial program.

DAMMER: I think -- I think the short answer to that is -- is the economics. The richest oil shale on earth is located in the Piceance Basin of Colorado. It's a relatively small area, but it's the area where the RD&D leases are located. That's where Shell, Amso, Exxon, and Chevron want to deploy their institute technologies. And the reason for that is, is that in that particular region the pay zone in the middle of the Piceance Basin is a thousand foot thick. All right?

So there's about a thousand foot of overburden and then there's about a thousand foot of pay, a very, very high quality consistent oil shale. So what they want to do is they want to put those electric heaters down into that very thick pay. Keep in mind you -- you would be heating that hold column of thousand foot and the payoff for that is tremendous.

Shell incidentally believes that they will produce a million to 1.2 million barrels per acre. There's no conventional oil play on earth that is that productive and that concentrated.

So that's -- that's the story with the Piceance Basin.

TONKO: And with the state in private lands that exist along with the proposed research leases in PEIS. Are those not enough in terms of area or land space?

DAMMER: Well they reduced -- they've reduced the land space from 2 million to somewhere below 500,000 acres. The thought is, no, that -- that is not enough land.

TONKO: Even for research and commercial pilots?

DAMMER: For commercialization. The -- the 2 million acres that were -- that were the preferred alternative in the original regulations were 2 million acres. So what's happened is that amount of land has been carved back to somewhere below 500,000 acres. And, yes, that -- that the -- the answer to your question is that's not enough open land.

TONKO: OK.

In support of -- of -- of this discussion I would ask that the wilderness society document outlining the private and state land leasing for oil shale be included if we might, Mr. Chair, in the record?

HARRIS: Without objection.

TONKO: Thank you. And the oil shale industry has a very long history of grant failures which have (inaudible) enormous costs to investors and to taxpayers and certainly the environment. Yet today we're talking about it as this resource of the future as if it's some new idea that has not seen a century of attempts with no return on investment.

GAO just testified that their project to assess the water impacts of oil shale was complicated by the fact that the technologies were not mature enough to inform a precise assessment. Yet here we are hearing that it's a proven commercial-ready technology and all you need is the federal land to make it happen.

Mr. Dammer and Ms. Julian, what -- what has changed to -- to perhaps have us think differently here?

DAMMER: Well, I -- I don't want to correct you, but I -- I -- I don't think we said that -- that these were ready for commercial -- to be commercialized. There is no commercial oil shale development project, but what I -- what I would say is that there has been a lot of private R&D that's gone in to these technologies.

Shell has spent hundreds and hundreds of millions of private capital out on their site in Colorado. They have a -- they have a very good idea of what their water usage is and their energy return on investment, as does Red Leaf Resources Incorporated who has run a pilot.

So...

(CROSSTALK)

TONKO: And has that research provided for any different approach or would it be the same -- it's the same effort with the same potential impacts on water and the environment?

DAMMER: Well, I think -- I think the Institute Technology and the -- the -- the Red Lead Technology which is a modified into two is unlike any other kind of technology that you might hark back to -- to the 80's where the surface retort was (inaudible) and -- and, you know room and pillar mining and surface mining were being considered.

That's not to say that surface retorts haven't improved their technology remarkably, but this is not your grandfathers oil shale industry anymore just as with shale gas technology 10 years ago. I've been in the oil and gas business for a long time. Ten years ago people were saying you would never be able to deviate a well into a -- into a shallow conventional shale reservoir that's 10,000 feet deep and put out a long reach horizontal well and another 10,000 feet. People would have laughed at this. So, I mean, it's a technological play that's evolving and -- and it's evolving very fast.

TONKO: Thank you.

Mr. Chair, I yield back.

HARRIS: Thank you very much. And again we'll have a second round here.

Ms. Julian, in your written testimony you state that as any operator will tell you coal, oil, gas, winds, solar, shale, sands, et cetera, working on state land is not only more clearly streamlined, but consistently regulated. Could you please expand upon some of those lessons from Utah with regard to the permitting process or energy regulation with regards to state versus federal?

JULIAN: Sure.

In the state of Utah our regular -- regulatory policy is laid out pretty simply. We completely lay everything out on the table and we really want it to be an expeditious business-friendly process.

It's not subject to interpretation as much federal regulation is which creates a delay in -- in terms of into a judiciary system. The process to improve everything from air and water permits to mining permits in the last three to four years is -- the timeline has decreased significantly where some permits can be done in 90 to 120 days.

And some of the things that we do in the state of Utah is we put all the regulators in the room together for an entire project and we have them work it out together with the company all at the same time and say, "What are the timelines? What are the obstacles? Where do we need to go through for this?" and just getting them in the same room and having these predesigned meetings has cut down on all kinds of things that regulatory agencies go through on a federal level that turn into a judiciary-type situation where you have lawsuits delaying projects and perhaps losing private investments that happens with the federal entities.

HARRIS: Thank you.

I would like to ask unanimous consent to enter into the records the following three documents from the state of Utah -- the Utah's economic development plan, Utah's 10 year strategy and energy plan that's called energy initiatives and imperatives, and Utah's response to the BLM's draft, programmatic environmental impact statement for oil shale and tar sands.

So without objection so ordered.

Thank you very much.

Specifically, you know, you discussed Governor Herbert's 10 year strategic energy plan. Are there any particular examples from the plan you would like to highlight with regard to regulations streamline development coordination long term planning? Anything that you'd suggest to the federal government adopt some kind of similar strategies?

JULIAN: Sure.

There were eight recommendations that came out of the plan from the task force. One of them was to increase transparency to really look at the regulatory system, the licensing system, put it on line, have people see exactly where it's at, and a just regulatory framework to technology. Modernize it.

Some of the things that we looked at and the way that we looked at regulatory processes are decades old. We haven't changed it. Technology has changed. Some of these processes were put in place before there were cellphones, before there were other -- other messages -- excuse me, methods of technology and we haven't sped up the regulatory process to keep up with technology.

HARRIS: Again, thank you.

Now, Mr. Andersen, with regards to your technology I understand that one of its usefulness is actually can be -- to direct how the drill -- horizontal drilling occurs. Is that right? The -- by detecting the -- by doing -- well, by seismic detections as you're drilling?

ANDERSEN: You could do that also. That's not one of the -- I guess parts that we're pushing here, but basically you put a bunch of sensors in the ground (inaudible) trying to (inaudible) some event that's occurring and knowing exactly in three dimensions where it is be it a fracture occurring or a drill progressing down, you know, to drill a well.

HARRIS: And your -- what you're suggesting is that the technology actually would enable it to be more efficient with regards to the fracturing. Is that right? That we should know exactly where it's occurring and when it's occurring and the extent of it, and whether you're near or you shouldn't be?

ANDERSEN: Absolutely.

And one of the things I -- I primarily talked about here was the environmental effects, but in reality there's a big efficiency improvement. I was a -- in a frac job down with a -- in Fayetteville Shale about a year ago and I was talking to the geophysicists we have there doing the frac monitoring. And, you know, I asked her and I said, "What's your interest in this? Why are you monitoring, a lot of the other guys aren't?" He says, "Well, you know, we have a certain amount of acreage. We want to maximize how much we get out of that field. If we don't monitor we have to guess how far we space the wells because we're not sure where the fractures are occurring. So, if you put it too close you'll have thief zones and the fracture would leak into a previous fracked area."

So the point was, is their thought if they could get this done inexpensively they would do this on all their frac jobs and it will allow them to get maybe 30 percent, 35 percent more pout of the fields where I've been leaving areas just untouched.

HARRIS: So, in essence that also relatively reduces the amount of -- the environmental impact per, you know, million BTU of gas extracted from a gas well for instance. Right? Because you're extracting more from the same bore hole. ANDERSEN: Exactly.

And -- and one other point is that, you know, I was talking -- we had an investor day at my plant yesterday and I was talking to one of our clients who, you know, does a lot of fracs and he says, you know, typically you might do stages like six or eight stages, half of them may not produce but you don't know because you're not monitoring it so you're not, you know, seeing the effects so there'd be a lot of efficiency improvements if you monitor 100 percent.

HARRIS: And the bottom line is, two years ago that technology just didn't exist.

ANDERSEN: Did not exist. That is correct.

HARRIS: So, you know, as we look in -- and the whole purpose of the hearing is to -- is to look at -- at research and development of unconventional oil and gas. I personally believe -- and I'm going to ask you whether you agree, but I suspect you do that we -- is to do technological improvement, that we will actually improve and increase the amount of available unconventional oil and gas. And I think your product is are perfect example how you do it through technology.

ANDERSEN: I agree 100 percent.

I am, just real quickly. You know, they are talking in the 70's that oil -- peak oil reach, energy is going down, but then, you know, here technology came along hydrofracking , you know, you look at it and starting around 2008 it's going up. You know, technology has done that.

And what I'm worried about is, you know, that whole evolution could get slowed down by, you know, people who have concerns about the safety of it. And we could monitor that. And the technology exist to do that and if some events start happening they could be corrected before there's any significant environmental damage.

HARRIS: You know, this is -- it's great. I'm a firm believer in technology.

I wish, you know, we had invited ATK, a company that has some presence in my district, but I know you may or may not be familiar with. It's doing the propellant fracturing. So...

(CROSSTALK)

HARRIS: ...water and -- and -- and, you know, they claim they can roughly double the yield of wells of their test wells done with that technology.

Now, you combine that with your (inaudible) and all of a sudden you -- you know, we've got -- we've got potentials that we knew nothing about two or three years ago which is always exciting.

With that, Mr. Todd, briefly and I'm going to... TODD: If you don't mind I -- I might build on the same point relative to water. The last company that I worked for in in-situ oil sand developer in Canada, we were the first company to use a new water recycling technology that's been developed and acquired by G.E., it was a -- it allowed us to get the highest water recycle that's ever been achieved in the oil sands to date. That's a technology that did not exist five years prior. It's now standard practice. And it couldn't have existed if we'd had have the answer before we were allowed to get access to the resource.

As you start on the projects and you start small you identify the problems and the opportunities, and technology works along with you. But if you have to solve it all before you get started you can never...

(CROSSTALK)

HARRIS: Thank you very much.

Mr. Tonko?

TONKO: Thank you, Mr. Chair.

Ms. Julian and Mr. Dammer, there seems to be an apparent difference in public acceptance in Utah versus Colorado. Can you speak to that, please?

JULIAN: There is public opinion difference, definitely, in Colorado versus Utah, and much of that is that some of those folks that aren't interested in oil shale development actually don't live in those regions or areas and so they are worried about those particular concerns because they're not in the area, they're -- they're not aware of the jobs, the economic benefits to that community, and the fact that it isn't just about water availability, it's -- it's how you use the water.

And so, Colorado and Utah do have somewhat of a difference. Even though Colorado has a great resource the state of Utah is open for business and many oil shale and oil sands companies are coming over the border to do business with us.

TONKO: Mr. Dammer?

DAMMER: Well, I -- I think that Utah has an entirely different -- different attitude toward commerce and development than Colorado has. Colorado is very much more diverse. I got a letter -- I guess it was last night that said that a number of -- of mayors had objected to the expansion of -- of oil shale lands to 2 million and they were back in the 400 and something thousand (ph) acre.

And one -- one of the objectors was from Carbondale. Well Carbondale is -- is southeast and halfway to Aspen. So there's a lot of -- there's a lot of recreational -- there's a lot of retirement- type of activity out and around Rifle and the Piceance Basin. And I think one of the challenges for oil shale development is going to be how are you going to responsibly and sustainably build that industry in that area. It's -- it's going to be different.

The other side of the coin is -- is that three county commissioners -- Mason County, Garfield County, and Rio Blanco County -- wrote the opposite letter saying that we represent the people of these counties and

we support the 2 million acre.

But what you're seeing in Colorado that I don't think you're seeing in Utah is you see retirement communities that are not interested in mineral development. But if you go in to these towns and talk to people that have to shift their kids down to Aspen that serves Starbuck's coffee, the -- the people in the area they're interested in high-paying jobs. So it's a -- it's a push and pull.

I worked in Utah and it is open for business. It's -- it's an entirely different environment.

(CROSSTALK)

TONKO: I'm sorry.

JULIAN: I'm sorry.

I would also add to it that I think people don't realize that you can have both. You can have environmental sustainability and energy development. It's not mutually exclusive. These things can happen together. You can have prosperity and economic development and jobs -- ripple effects to -- to -- into the school systems.

And you can still have tourism. You can still have your endangered species and all of the species that (inaudible) plant life survive and thrive. And you can still have other industries such as agriculture and hunting. It can be done together. It is, again, not mutually exclusive.

TONKO: My understanding is that the processes used in Estonia have created massive environmental damage there. Would we use that same process here?

DAMMER: No, sir.

I worked in Estonia for several years. You're exactly right. The old antiquated surface retorts that they use there are pretty nasty business. They produce a lot of semicoke. You know, they call them the Estonian Alps.

To the credit of Enefit which is their -- they have a U.S. subsidiary now called Enefit American Oil and they own -- they own a -- they own land in Utah. They refine that retort. I can't tell you exactly all the technical details of it, but it's -- it's much improved, but you would never want the retorts that are operating -- operating in Estonia to come to the United States.

As with the -- as with the Chinese retorts, the Fushun retorts. Those are horrible and nasty things.

TONKO: The -- many of you have made reference to the technologies that produce water. What's the quality of this water compared to that which already exists on the surface?

TODD: You know, in our case the water is -- is -- is a freshwater that -- that -- that we produce. We don't actually discharge water. The water that -- that -- that we lose is essentially water that evaporates and is coating the sand grains. And so, it's like putting wet beach sand on the ground. It's -- it's got water entrained in it and -- and that's all the water that's -- that's used in our process.

TONKO: I believe I'm out of time so I yield back, Mr. Chair.

HARRIS: If you have additional question -- take a little extra time if you want to ask another question.

TONKO: If I could just ask Mr. Todd about the -- in terms of commercial readiness what is the difference between oil sands and oil shale?

TODD: There -- there are many, many differences and we can go back to the chemistry of it all. But -- but oil sands have oil in them. It's -- it's oil that's ready to go into a refinery.

And so when we produce our oil it -- it will go direct to refining. It does not require to be upgraded. It's not a kerogen, it is oil.

It's heavier and -- and it requires some technical dealing with viscosity. Those are chemical problems to be dealt with.

The -- the kerogen that -- that they both started off in the shale, all the oil and gas in the world started off in shale, the stuff that -- that migrated out of -- out of the shale after it became mature became oil and gas. And then oil if it came close to the surface as it has in Utah and the surface was eroded away and that oil came into contact with the atmosphere, the light ends of the oil would run off and what would be left of it is very heavy and that's why it's hard to get out of the ground.

And then on the other hand what's left in the shale is still -- needed to be cooked, but unfortunately it wasn't -- it wasn't left buried long enough and so now it needs to be cooked manmade to get it out.

So they're very -- two completely different problems. One is the oldest oil in the world and one is the youngest oil in the world.

TONKO: OK.

Mr. Chair, in support of the discussion we've been having I ask that the nine-page report by the Checks and Balances Project titled "A Century of Failure" be included in the record.

HARRIS: Without objection so ordered.

TONKO: Thank you. And also a -- a compilation of expert quotes titled Not Ready for Prime Time, expressing opinions about the commercial readiness of the oil shale also prepared by the Checks and Balances Project, be -- be included in the record.

HARRIS: Without objection so ordered.

TONKO: Thank you, sir.

HARRIS: Thank you.

I'm going to ask unanimous consent to enter into the record three resolutions passed by the board of county commissioners for Garfield, Mason, and Rio Blanco Counties, Colorado opposing the U.S. Bureau of Land Management's 2012 oil shale and tar sands programmatic environmental impact statement for lands administered by the BLM in Colorado, Utah, and Wyoming.

Additionally, I'd ask unanimous consent to enter into the record two additional documents -- a white paper co-authored by Mr. Dammer entitled, "Economic Impact of failure to Implement Legislative Mandates of Section 369 of Energy Policy Act of 2005", and a letter from Dr. Deg Newman -- Newmetal (ph) and Dr. Jeremy Boak with the Colorado School of Mines regarding unconventional oil and gas development.

Without objection so ordered.

I want to thank the witnesses for their valuable testimony and the members for their questions. The members of the committee may have additional questions for you and we ask you to respond to those in writing. The record will remain open for two weeks for additional comments for members.

The witnesses are excused. Thank you all very much for coming. The hearing is now adjourned.

END

Tribes oppose federal fracking rules - · Severe impact on Fort Berthold economy , says leader

Grand Forks Herald (ND) - Thursday, May 10, 2012
Author: Amy Dalrymple; Forum Communications

NEW TOWN, N.D. - Federal red tape and redundant regulations threaten to slow oil development on the Fort Berthold Indian Reservation, tribal officials and industry leaders said Tuesday.

Tex Hall, chairman of the Mandan Hidatsa Arikara Nation, said the tribes oppose federal rules announced Friday that will require companies drilling for oil and gas on public and Indian lands to publicly disclose chemicals used in hydraulic fracturing .

Hall, who gave the opening comments Tuesday during the MHA Bakken Oil and Gas Expo, said he's not opposed to disclosing the chemicals, but the proposed federal rules go too far and will slow down the permitting process.

"We shouldn't be held up by federal obstacles or federal red tape," Hall said. "These rules are severely impacting the bigger economy at Fort Berthold."

Terry Kovacevich, an asset manager for Marathon Oil in Dickinson, N.D., echoed Hall's comments during a presentation Tuesday afternoon.

Kovacevich said the proposed federal fracking rules duplicate what the state already has in place and will slow oil development.

"All of this will drive development away from the reservation," Kovacevich said.

Already, the Bureau of Land Management can't keep up with approving drilling permits on tribal land, and this extra requirement will create further delays, Kovacevich said.

Rick Hotaling, acting North Dakota field manager for the federal Bureau of Land Management, said the rule was amended to require the fracking chemical disclosure after completion of the well, rather than before, in response to industry comments.

Unfair agreement?

Hall also said he's sending a written request to Gov. Jack Dalrymple asking to renegotiate an agreement the tribes have with the state regarding oil tax revenue generated on the reservation.

Hall said the agreement is unfair and the tribe should be receiving a greater share.

"We already asked him but nothing happened," Hall said. "We're not going away."

Dalrymple, in a phone interview after the conference, said he has appointed legal counsel in his office to discuss the issue with tribal officials.

However, changing the rule would require legislative approval, not just action from his office, Dalrymple said.

"Everybody signed it originally. They think that some of the details of it could be more fair, I guess," Dalrymple said. "We are certainly open to talking to them about that."

Hall also called on oil companies to share the responsibility of maintaining the roads.

Last year, the tribe spent $9.5 million on roads and the tribe and its members were not responsible for that amount of damage, Hall said.

"We can't afford to pay for everything," he said.

Dalrymple is a Forum Communications Co. reporter stationed in the Oil Patch. She can be reached at adalrymple@forumcomm.com or (701) 580-6890.
Caption: Hall

Permit sought for deep-shale well in Athens County
Athens Messenger, The (OH) - Tuesday, May 8, 2012
Author: Steve Robb; Messenger staff journalist

An Athens County businessman says he's hoping a well he wants to drill on his family farm will give a better idea of whether Utica shale in the county is viable for oil and gas production.

Brent Hayes recently applied to the Ohio Department of Natural Resources for a permit to drill a well in Rome Twp., a project he wants to do with R. Wolfe Oil and Gas LLC, a local company.

"It seems like there is just not enough data on Athens County for ODNR or anyone else to say if Athens County is in the production zone (for Utica shale) or not, or what the potential is in our county," Hayes said.

In March the state released a map of Ohio rating areas of the state for their potential for Utica shale production. Areas immediately adjacent to Athens County were listed as "poor," but Athens County wasn't even rated.

Hayes said there is a lack of data, and he thinks the state is being conservative.

He said the site of the proposed well has a good production history from the 1970s and 1980s for the shallower Medina shale.

The plan is to drill down to the Utica shale (about 6,100 feet), and - if it does not turn out to be productive - to "back plug" the well to seek oil and gas at a higher level.

"I think the most important thing is that this is not a horizontal well," Hayes said.

In a horizontal well, once the shale is reached it is drilled into horizontally and then fractured using sand, chemicals and massive amounts of water to release the oil and gas. There are those who believe it is dangerous to the environment, and there has been vocal opposition to the possibility of horizontal hydraulic fracturing coming to Athens County.

Hayes said that if a successful vertical Utica well is drilled, it could open the door to other Utica wells being drilled in Athens County. Those would be vertical wells if drilled by Hayes and his partners. Horizontal wells are much more expensive.

Given the low prices being paid for natural gas, Hayes said, the hope is to find mainly oil in the Utica shale well they want to drill in Rome Twp.

R. Wolfe Oil and Gas does not have a rig capable of reaching the Utica shale, according to Hayes, so an outside driller would need to be used. A representative of Wolfe Oil and Gas could not be reached for comment Monday.

In addition to Wolfe and Hayes, other local investors are being sought, according to Hayes.

"We'd like to keep this opportunity local," Hayes said, adding that talks have been taking place with potential investors.

He declined to publicly disclose the estimated cost of the well.

Hayes said the plan is not to do core drilling in the shale because it is expensive. However, he said, they would be willing to work with the state if the state wants to take samples to collect data.

Asked if the well could be converted to an injection well if drilling does not result in a production well, Hayes replied, "that's not our plan at this time."

Hayes said he doesn't know much about injection wells and would need to know about the environmental impacts, noting that his family farm has springs, water wells and creeks on it.

ODNR spokeswoman Heidi Hetzel-Evans said the agency has 21 days to process permits to drill in rural areas, but averages about 14 to 17 days per permit. Hayes said the permit application was sent in a week ago.

When the state released the revised Utica shale map in March, the fact that it did not include Athens County killed negotiations Cunningham Energy was having with a joint venture partner to drill horizontal wells in the county, according to Athens attorney John Lavelle, who negotiated hundreds of leases with Cunningham for Athens County property owners.

Lavelle said Friday that Cunningham is putting together an alternative proposal calling for the drilling of five vertical test wells into the Utica shale.
Memo: Brent Hayes, who wants to drill a vertical well on his family farm to explore whether Utica shale in the county is viable for oil and gas production.

To Make Fracturing Safer: [Editorial]
New York Times [New York, N.Y] 11 May 2012: A.30.

[...]the proposed rules -- like the new air-quality rules issued last month by the Environmental Protection Agency requiring drillers to capture smog-forming pollutants and methane -- are a step forward.

There is little doubt that natural gas, which is plentiful and cleaner than coal, could help with the country's energy and climate problems. But as Interior Secretary Ken Salazar once warned, the drilling technique known as hydraulic fracturing could be natural gas's Achilles' heel unless the public can be sure it will not pollute water supplies or the air.

Hydraulic fracturing, combined with deep horizontal drilling, has been largely responsible for a huge surge in the production of natural gas. It has also been blamed for poisoned wells and dirty air.

Last Friday, Mr. Salazar proposed new rules governing drilling on more than 700 million acres of federal and Indian lands that his department oversees. They cover safety issues now regulated with varying degrees of strictness by the states: the casing, or lining, of wells to prevent contamination of aquifers and groundwater; the safe disposal of contaminated water that emerges from every well; and disclosure of the chemicals used the drilling process.

While most new production has occurred on private lands in places like North Dakota and Pennsylvania, about 3,400 wells are drilled every year on federal and Indian lands. The hope is that a strong set of federal rules will provide a standard governing drilling everywhere.

On the whole, the proposed rules -- like the new air-quality rules issued last month by the Environmental Protection Agency requiring drillers to capture smog-forming pollutants and methane -- are a step forward. But they should be tightened after the public comment period expires in July. The wastewater disposal rules, for example, seem incomplete; they require temporary storage for wastewater in steel tanks or lined pits but are unclear on what happens to the water later. One alternative is to require recycling or underground injection. The rules requiring disclosure of chemicals are crucial because there are no such requirements now, but the industry is sure to claim protections for "proprietary" information. The Interior Department should set the bar for exceptions very high.

The industry and some of its Republican allies are already attacking the rules as heavy-handed federal intrusion. The American Petroleum Institute warned that the overlap with state rules would have a "chilling effect" on investment, and Mitt Romney said state rules were sufficient, which is simply not true. A study

released in February of regulations in 16 states by the Energy Institute at the University of Texas found that "regulatory gaps remain in many states. " Oil and gas drilling will always be a risky business. The administration cannot let pass this opportunity to make it safer.

Mechanical Failure , Human Error Led To Wyoming Gas Well Blowout , Probe Says

BNA Daily Environment Report

DENVER—The Wyoming Oil and Gas Conservation Commission has released a report stating that mechanical failure was the chief cause of a recent blowout of a natural gas well near Douglas, Wyo. Human error also contributed to the April 24 incident, which resulted in no injuries to workers or residents living near Chesapeake Combs Ranch Unit Well 29-33-70 1H in Converse County.

The natural gas well in the Niobrara formation blew out and emitted gas for about 66 hours until the company plugged it, the commission report stated. Mechanical failure of one section of wellhead resulted in the loss of well control, the investigation concluded.

Also contributing to the incident were a delay in observation of and response to a gain in drilling mud in the pits during the running of the production casing prior to the incident and improper engagement of wellhead lockdown pins.

The report, released May 10, stated that the producer at the well site, Chesapeake Energy, continues to cooperate fully with the investigation. The commission does not plan regulatory action pending the company's completing final drill pad and affected area cleanup, it said.

No Hydraulic Fracturing

Kelsey Campbell, a spokeswoman for Chesapeake in Denver, told BNA the well was being drilled for natural gas and was not in the process of being hydraulically fractured at the time of the incident. Chesapeake continues to investigate and has not yet decided whether to put the well into production, she said.

The commission report estimated that less than 2 million cubic feet of natural gas was released to the atmosphere in the incident. No fire occurred at the four-acre drill pad site. The affected area was an estimated 52.2 acres, it said.

The section of wellhead and the lockdown pin were recovered on site and have been transported by Chesapeake to a metallurgical lab in Baton Rouge, La., for further examination, the commission said.

Workers on site heard what they described as a “sharp” sound, followed by a roar as natural gas and drilling fluid spewed out of the top of the well. As a precaution, about 50 local residents were evacuated.

By Tripp Baltz

For More Information

The report on the natural gas blowout near Douglas, Wyo., is available at http://wogcc.state.wy.us/downloads/10May2012_OGCC%20Investigation_ChesapeakeCombsRanchLossofWellControl.pdf.

EPA Releases Another Set of Test Results Finding No Violations in Dimock Water Wells

BNA Snapshot BNA Daily Environment Report

EPA Drinking Water Tests in Dimock, Pa.

Key Development: EPA reports no contaminants exceeded federal standards in latest set of sample results.

Potential Impact: The results may calm some concerns about drilling in the Marcellus Shale.

What's Next: EPA will resample four wells where previous date from state, Cabot Oil & Gas showed contaminant levels posing health concerns, but where EPA sampling data did not detect levels requiring

action.By Alan Kovski

The Environmental Protection Agency released a fourth set of test results May 11 for water wells in Dimock, Pa., with findings that none of the samples violated regulatory standards for drinking water. EPA decided to test 61 wells in the northeastern Pennsylvania township after methane in groundwater was blamed on nearby natural gas drilling by Cabot Oil & Gas Corp. in 2009 and focused national attention on Dimock (67 DEN A-9, 4/9/12).

The latest samples were from 12 private drinking water wells, bringing to 59 the number of wells that have been tested without finding a violation of water quality standards.

“This set of sampling did not show levels of contaminants that would give EPA reason to take further action,” EPA said in a statement released by its Region 3 office in Philadelphia. “At one well, EPA found an elevated level of methane and informed the resident, the Pennsylvania Department of Environmental Protection, and the Susquehanna County Emergency Management Agency.”

Data for two other wells were not released in the latest group because EPA had not had a chance to provide the results to residents first.

Cabot Pleased Results Are Out
Cabot welcomed the latest results with a statement saying, “Cabot is pleased that EPA has now reached the same conclusion of Cabot and state and local authorities resulting from the collection of more than 10,000 pages of hard data—that the water in Dimock meets all regulatory standards.”
The company said none of the detected contaminants bore any relationship to gas development in the Dimock area.

Cabot continues to be a significant producer of gas from the Marcellus Shale in Pennsylvania.
EPA said it has not finished its Dimock work.

“To provide certainty to residents and ensure a thorough and accurate analysis, EPA will resample the four wells where previous Cabot and state data showed levels of contaminants that pose a health concern but where EPA's initial round of sampling data did not detect levels that would require action,” the agency said.

“Once all of the sample results are complete, we will conduct a comprehensive review to determine if there are any trends or patterns in the data as it relates to home well water quality,” EPA said.

For More Information
EPA test results for 59 of 61 drinking water wells in Dimock, Pa., are available at http://bit.ly/K8sNZx.

EPA's Draft Diesel Fracking Guide Raises Questions Over States ' Primacy

Posted: May 10, 2012 Follow Clean Energy Report

EPA's draft guidance for how agency permit writers should regulate hydraulic fracturing wells where diesel fuels are used is sparking concerns from industry that states that oversee their own delegated programs could face pressure to conform with EPA requirements or face the loss of their primacy under the Safe Drinking Water Act (SDWA).

While the draft guidance says it only applies to states in which EPA is the permitting authority, it also maintains that any fracking operations using diesel fuels must obtain a SDWA permit before drilling, raising concerns that so-called primacy states -- which include most oil and gas producing states, such as North Dakota, Texas, Wyoming, Colorado, Montana, New Mexico, Oklahoma and others -- will have to develop their own permit programs.

"In these states where fracturing is regulated under [state] well-construction permits, the draft guidance is obscure," says one industry source who strongly favors state oversight of fracking operations.

Industry concerns echo previous state fears that the guidance could impact their primacy if they opt not to implement the permitting recommendations.

Other sources also caution that the guidance could provide a model for those states, such as Maryland, that do not yet have requirements for any fracking operations -- whether they use diesel or not -- for aspects of the drilling process outside of the concerns with diesel, such as monitoring and well integrity standards.

The draft guide provides a "subtle pre-emption" of state fracking regulations, particularly in the area of well design and integrity standards, which have always been the purview of the states, Jason Hutt, an attorney with the law firm Bracewell & Guiliani told a May 8 webinar sponsored by the American Law Institute-Continuing Legal Education (ALI-CLE).

"The federal government is beginning to promulgate a subtle set of well integrity requirements. If EPA says you have to have these for diesel, why wouldn't you just as a state implement them for all fracking wells?" Hutt said.

Further, industry officials are questioning how the agency will manage the permitting workload for fracking operations in the four states -- Pennsylvania, New York, Kentucky and Tennessee -- where EPA issues underground injection control (UIC) permits, though the geology in Pennsylvania and New York typically does not support widespread use of strictly regulated Class II UIC wells that the agency is mandating for fracking wells that use diesel.

"One wonders whether EPA can handle primacy for fracking in Pennsylvania," given the thousands of wells used for natural gas drilling, Hutt said.

EPA released its long-awaited draft "Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels," May 4, and plans to publish the document in the Federal Register May 10 ahead of a 60-day public comment period.

The draft guidance lays out a broad set of permit recommendations for EPA regional offices in states that lack permitting primacy for Class II UIC wells, including suggestions for public notice proceedings, monitoring and pressure testing to ensure fracking fluids do not endanger groundwater, cementing and casing requirements.

The draft guidance includes recommendations for how permit writers should tailor the Class II rules, which typically regulate wastewater disposal and enhanced oil recovery wells associated with energy extraction, to better fit the unique characteristics of fracking operations.

For example, the draft document suggests that permit writers could set a shorter permit duration for a fracking well than would ordinarily be required under Class II rules, given that the injection is a temporary process as opposed to permanent wastewater storage.

And the draft guidance recommends modifying the area of review (AoR) requirements, or the scope of the area regulated by the permit, from the one-quarter mile typically used in Class II rules to a larger radius that covers the entire length of a horizontal fracture, which could be several miles.

EPA developed the guidance to implement its permitting authority. Although a 2005 energy law generally barred EPA from regulating fracking injections under its UIC program, the law preserved its ability to regulate the practice where diesel fuels are used. The fuels are sometimes used in certain rock formations as a carrier to help break up other chemical additives, though industry says the practice has largely been dropped.

Draft Aimed At Four States

While the draft was expected to include recommendations for UIC permit writers in setting permitting conditions to ensure any fracking that uses diesel fuels is done in a way that is protective of underground

sources of drinking water, EPA instead specified that the draft document is intended to support EPA UIC permit writers in the four states and tribal areas where the agency oversees the Class II programs, alongside those areas' energy drilling authorities. EPA estimates that the draft guidance would apply to around 2 percent of fracking operations in those states.

"Where EPA is the UIC permitting authority, EPA will permit diesel fuels [in hydraulic fracturing] in coordination with state oil and natural gas implementing agencies, as appropriate," the draft guidance says.

But while the draft guidance says that fracking using diesel cannot be done without a permit, it is largely silent on what that means for drillers in primacy states that do not implement a new Class II program for regulating those types of operations, industry sources say.

As a result, they are concerned that EPA may exercise its SDWA authority to conduct periodic reviews of state UIC rules and withdraw primacy from a state where it finds that a particular UIC program is not "at least as strict" as EPA's requirements.

Alternatively, environmental groups may petition the agency to pull primacy from a state if they believe that the state regulatory agency is failing to properly orchestrate a permitting program -- as was the case in Alabama where environmentalists successfully sued the agency to withdraw the state's primacy because it was not permitting fracking under its UIC program.

"EPA has spoken -- this is not supposed to apply to [primacy] states. But if [states are] not going to do these things, it could jeopardize their primacy" status when the agency conducts its review of that state's permitting regime, give environmentalists an avenue to challenge state primacy or potentially expose drillers to EPA enforcement, a second industry source says.

Industry is particularly concerned because some oil and gas producing states, including North Dakota and Texas, have hinted they do not have the resources to permit each fracking operation that uses diesel and do not believe the Class II rules can easily be applied to fracking operations without significant harm to energy production. As a result, drillers could face enforcement actions that could effectively require them to comply with the guidance's requirements.

Further complicating the issue is the potential for split authority -- in states where the state environmental agency oversees the UIC program, but a separate oil and gas regulatory agency is responsible for managing all fracking operations. For those states, the guidance may means the permitting responsibility falls on an agency that typically does not deal with fracking wells.

During the May 8 ALI-CLE webinar, Hutt, said that the draft guidance's silence on who is subject to its requirements could complicate a potential industry lawsuit to challenge the guidance under the Administrative Procedure Act because the draft language could "undercut" industry's ability to show standing.

For example, if a court found that the guidance only applies to four states, it could hinder efforts of national industry groups to show standing.

Hutt also suggested that EPA could use the requirements laid out in the draft guide as a "measuring stick" when reviewing a state's primacy program, and potentially take oversight back from that state. For example, EPA in the draft guidance appears to include a host of recommendations for addressing potential environmental concerns that industry argues do not directly relate to use of diesel fuels, including baseline monitoring of groundwater prior to drilling and accounting for seismic concerns when determining whether or not to grant a permit for a particular site.

Environmentalists had previously pushed the agency to craft a strict guidance that could ultimately be adopted by states as a model for how to regulate all types of fracking operations -- not just diesel -- such as Maryland, that do not yet have fracking regulations in place. -- Bridget DiCosmo

DOI Fracking Plan Sets Weaker Chemical Disclosure Bar Than Key States

Posted: May 10, 2012 Follow Clean Energy Report

The Interior Department's (DOI) long-awaited draft hydraulic fracturing rule requires drillers to publicly disclose chemicals used in their fracking operations only after the process is completed -- an approach that is weaker than disclosure requirements in key states, including Colorado, Wyoming and Texas, which require pre-injection disclosure.

The provision, which softens requirements in an earlier draft measure, is drawing strong criticism from environmentalists who fear it may provide impetus for industry groups to lobby states to soften future disclosure rules to adhere to the DOI provision.

Industry, while it opposes the overall draft rule as unnecessary and duplicative of state regulations, is supportive of the disclosure provision, arguing that pre-drilling disclosure may not provide an accurate list of chemicals because drillers may switch additives after drilling commences depending on the makeup of the rock formation.

The draft requirements, which would set minimal standards for mechanical integrity, chemical disclosure and wastewater management for drilling operations on public lands, represent the first time that DOI's Bureau of Land Management (BLM) has revised its standards for oil and gas fracking since 1988.

To craft the draft rule, BLM looked to existing state regulations, as well as American Petroleum Institute's (API) standards for best practices on well integrity and design requirements. "This proposal seeks to create a consistent oversight and disclosure model that will work in concert with other regulators' requirements while protecting Federal and tribal interests and resources," the draft rule says.

The proposal is intended to update rules that are more than 30 years old and were never written to govern modern fracking operations -- where technological advances have made it possible to tap previously inaccessible shale plays to unlock huge reserves of oil and gas but created new environmental concerns, BLM says.

An earlier draft of the proposal, leaked to media organizations in March, showed that BLM planned to require drillers to provide a list of anticipated chemicals 30 days before commencing drilling and a list of substances actually used within 15 days after the well completion.

But BLM's proposal, released May 4 in a pre-publication Federal Register notice, contains scaled-back disclosure requirements that instead only require companies to report what chemicals they used in fracking fluid after the operation is complete.

Environmentalists are concerned about this provision because they fear it will allow drillers to avoid providing a "list" of chemicals that landowners can use to more cheaply and effectively test for pre-existing groundwater contamination and develop a "baseline" for comparison should the drilling activities later impair water quality.

"We have real concerns that disclosure only occurs after fracturing begins," the environmental group Earthworks said in a May 4 statement. "This precludes the opportunity for baseline water testing to determine whether contamination has occurred."

Activists Like Aspects Of Plan

While environmentalists are unhappy about the timing of any disclosure, they are pleased that the proposal echoes some strict state requirements, such as Wyoming's rule requiring disclosure of most chemicals -- not just those that are listed by the Occupational Safety and Health Administration (OSHA) as New Mexico requires.

Adopting portions of state rules on disclosure is both a "strength and weakness" of the BLM rule, one activist says. "It's not as good as Wyoming, but not as bad as New Mexico."

The BLM proposal is also stronger than a much fought over Texas disclosure bill, which led to regulations that allow scaled back disclosure requirements for the non-OSHA regulated chemicals, the source says.

Similarly, environmentalists also say the federal rule is "cleaner" than a Wyoming provision allowing companies to withhold from the state any substances that are claimed confidential as confidential business information. The draft rule would allow companies to avoid public disclosure of such chemicals but still require them to supply the information to BLM, which environmentalists prefer because it means the data still gets reported to the government.

The environmentalist acknowledges that the draft rule should bring greater consistency to the disclosure debate, given that state rules have created somewhat of a patchwork of varying degrees of stringency in their regulations, but adds, "I had hoped it would be more leading than middle of the pack, and I don't see that here."

But industry continues to staunchly oppose the rule, arguing that it could potentially duplicate state rules on fracking and that federal regulations are not necessary. "The fundamental question is, 'what is the need?'" API President Jack Gerard said during a May 9 call with reporters.

Gerard said the draft rule, while it does not proposed many new or novel requirements, represents an unnecessary overlay atop state regulations that have effectively managed fracking operations for decades.

And one industry lawyer says that while industry generally appreciates the softened disclosure requirements and does not take issue with the well integrity measures proposed, the concern is that it is potentially duplicative. "The concern is that it's a lot of reporting to BLM," the source says.

That source adds that there is some uncertainty associated with how BLM assessed the potential costs and benefits, given that there may be significant additional reporting costs, but the majority of the benefits deal with enforcement actions avoided by complying with the rule, which seem "less tangible."

Meanwhile, the Natural Resources Defense Council (NRDC) is urging BLM to adopt a host of strict control requirements to better regulate wastewater disposal practices from fracking operations, though several of the changes the groups are seeking appear to require EPA or congressional action.

In a report released May 9, "In Fracking's Wake: New Rules are Needed to Protect Our Health and Environment from Contaminated Wastewater," the group emphasized that its highest priority is to eliminate EPA's long-standing exemption excluding oil and gas wastewater from hazardous waste regulation under the Resource Conservation and Recovery Act.

The group has long pushed EPA to end the exemption, saying it will force the wastewater to be disposed of in more strictly regulated hazardous waste disposal wells -- known as Class I wells in EPA's underground injection control (UIC) program -- rather than as Class II wastewater disposal wells, whose rules do not currently require consideration of possible seismic effects.

NRDC is also urging policymakers to improve regulatory standards for wastewater treatment facilities and the level of treatment required before discharge to water bodies -- measures that EPA is crafting.

The report also calls for the prohibition of or strong regulations on the impoundment and land application of wastewater from fracking, and a comprehensive reporting rule. "Regardless of which treatment or disposal method an operator uses to manage its shale gas wastewater, it should be required to publicly disclose the final destination of the waste," it says. -- Bridget DiCosmo & David LaRoss

Oil regulators heading to Bakersfield for input on fracking
Bakersfield Californian, The (CA) - Friday, May 11, 2012
Author: JOHN COX Californian staff writer jcox@bakersfield.com

Now's the time to collect your thoughts about fracking .

State regulators plan to swing through Bakersfield Wednesday as part of a statewide listening tour that could shape new rules for the contentious and increasingly common oil field practice also known as hydraulic fracturing .

Set for 7 to 9 p.m. at the county Board of Supervisors chambers, 1115 Truxtun Ave., the public workshop is to open with an overview of California oil and gas production, as well as a discussion of the state's geology and existing regulations designed to protect underground sources of drinking water.

After that, representatives of the state Department of Conservation plan to accept public comment. The same process is being followed in Culver City, Long Beach, Sacramento, Salinas, Santa Maria and Ventura.

The department is undertaking the effort at the urging of environmentalists and state lawmakers, who at a budget hearing earlier this spring expressed concern that California's existing rules may be insufficient to protect drinking water. Elsewhere in the United States, concerns have been raised that fracking could also trigger seismic activity.

The U.S. Environmental Protection Agency is conducting its own study of the practice; its findings are not expected to be released before next year.

Hydraulic fracturing consists of injecting sand, large volumes of water and small concentrations of sometimes toxic chemicals underground. The idea is to break open rock formations in a way that releases oil and gas. Though the practice is less common here than in places like Pennsylvania, North Dakota and Texas, fracking has been used in Kern County for decades, and many expect it will become much more common as local oil producers gear up to tap the potential huge Monterey Shale reservoir believed to underlie a large swath of the Central Valley.

Unlike several other states, California has no regulations specific to fracking , only well construction standards designed to keep natural gas and oil field fluids away from underground water sources. Engineers with the department's Division of Oil, Gas and Geothermal Resources approve fracking wells on a case-by-case basis.

The state keeps no easily searchable records on fracking , though officials recently asked oil companies to volunteer details on the practice. So far, few companies have complied, and it is unclear how complete those records are. The information is available online at fracfocus.org.

Apart from the listening sessions, the department plans to contract an independent scientific study of hydraulic fracturing in California.

Draft regulations are expected to be released later this year, at which point the department expects to solicit additional public comment.

Four Corners Oil and Gas Conference focuses on shale gas

Daily Times, The (Farmington, NM) - Friday, May 11, 2012
Author: Chuck Slothower cslothower@daily-times.com

FARMINGTON — The national rush to develop shale gas is already slowing in response to low prices, a local engineer said Thursday.

Dave Simpson, owner and principal engineer at MuleShoe Engineering in Flora Vista, said shale formations in the U.S. still have large reserves, but numerous technical and economic challenges must be overcome to produce them.

Simpson spoke on the second day of the Four Corners Oil and Gas Conference, a biannual gathering at McGee Park that brings about 2,400 participants to San Juan County.

Drilling to natural gas locked deep within shales often requires puncturing a mile or more underground, and the same distance horizontally. Hydraulic fracturing for such wells can take 250,000 barrels of water, Simpson said.

All of this makes drilling shale wells extremely expensive. Because of the costs, shale drilling only becomes attractive when natural gas prices approach $7 per 1,000 cubic feet, he said.

That's why new projects are slowing, with gas at only $2.36 per 1,000 cubic feet, according to the Henry Hub spot price Thursday.

"It sounds like a disconnect," Simpson said.

This has played out locally in WPX Energy's decision to place on hold a major drilling project on Middle Mesa near Navajo Lake. The company cited low natural gas prices in its decision to delay drilling.

Most companies are only pursuing natural gas wells where they risk losing a lease if they fail to drill within a specified time frame, Simpson said.

"We're really only drilling lease jeopardy wells right now," he said.

The Barnett Shale in Texas in 2009 surpassed the San Juan Basin as the nation's top-producing natural gas area, Simpson said. The Barnett, located near Fort Worth, has run into trouble with fracturing — also known as " fracking " — drawing down water supplies.

Some Fort Worth residents complained of low pressure to their residential water systems, Simpson said. That led to tighter restriction from water officials on water supplies in that area.

"Whole drilling programs have been slowed down because of delays with water removal," Simpson said.

Production in the Marcellus Shale, which lies beneath parts of Pennsylvania and New York, is also booming. Simpson said not enough government data has emerged to get a good estimate of production there.

Shale drilling also can bring up a whole lot of other material — water, bits of shale and sand.

"It's kind of a mess," Simpson said. "Shale is not your well-sorted product."

The final day of the conference kicked off with a discussion of geothermal energy led by Masami Nakagawa, an associate professor at the Colorado School of Mines.

Interest in geothermal surged in the 1970s, but only sporadic development has occurred in the U.S. since then, he said.

In Reykjavik, Iceland, 95 percent of homes are heated by geothermal energy. In the U.S., the city of Boise, Idaho, uses geothermal energy to heat government buildings. Geothermal power plants generate electricity in Hawaii and Thailand.

Nakagawa is studying geothermal potential in Rico, Colo. He's hosted public meetings for residents there to explain geothermal energy.

"I'd like to develop a new concept of energy that can help people, not hurt people," he said.

The Four Corners Oil and Gas Conference is set to return in 2014.
Caption: Photo: The exhibition hall at the Four Corners Oil and Gas Conference on Thursday at McGee Park.

Shale drilling can be safe , U.S. official from Fort Worth says

Fort Worth Star-Telegram (TX) - Friday, May 11, 2012
Author: Jim Fuquay, jfuquay@star-telegram.com

FORT WORTH -- An Energy Department official heading a new committee charged with coordinating efforts among three federal agencies to research the risks and benefits of unconventional oil and gas production says he believes it can be done safely.

Christopher Smith, a 1986 graduate of Southwest High School and now deputy assistant secretary for oil and natural gas at the Energy Department, was in Fort Worth Thursday. He addressed a breakfast meeting sponsored by the Fort Worth Chamber of Commerce and later toured the local manufacturing facility for FTS International, formerly Frac Tech, which makes equipment for hydraulic fracturing , the controversial technique used to produce oil and gas from shale.

In an interview, Smith said the interagency steering committee he heads held its first meeting on Wednesday. The six-person group, consisting of two members each from the Energy Department, the Environmental Protection Agency and the U.S. Geological Survey, was created by President Barack Obama to use "each agency's core competencies" to "scientifically quantify the concerns people have" about shale development and to make sure there are rules "to appropriately mitigate that risk."

It was Smith's second visit to Fort Worth in his official capacity. The first was about two years ago when he was with a Chinese delegation interested in learning more about hydraulic fracturing . The Barnett Shale, he said, is "ground zero" for investigating the effects of shale development because "they can see the benefits, but also the ways the city has worked with some of the environmental concerns," which include air emissions and potential groundwater contamination.

The prospect of an ample supply of relatively inexpensive natural gas is "an opportunity for consumers and an opportunity for businesses," Smith said.

"At the center of all our concerns is prudently and safely developing these resources," he said. "If you can put the scientific expertise of 10,000 scientists and engineers" available to the Energy Department to work on this, "you can demonstrate that you take those concerns seriously," he said.

While there are incidents that demand attention, he said, "this is a resource that can be developed safely."

Smith was appointed to his post by President Barack Obama in 2009. He is a graduate of West Point and holds a Master of Business Administration from Cambridge University.

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REP. ENGEL - SAFETY MUST COME FIRST IN DEALING WITH FRACKING

US Fed News (USA) - Friday, May 11, 2012
WASHINGTON, May 8 -- Rep. Eliot L. Engel, D-N.Y. (17th CD), issued the following news release:

Congressman Eliot Engel (D-NY-17) issued the following statement in response to the Obama Administration's new rules to provide oversight of fracking on public lands. Companies seeking to use the process on federal lands will have to obtain governmental approval. Rep. Engel is a senior member of the House Energy and Commerce Committee.

"The process of hydraulic fracturing , ' fracking ,' poses a potential threat to New York City's watershed, and our state's environment from upstate to downstate. I have continually worked to maintain high standards for New York's drinking water - and have helped secure almost $1 million recently for the New York City Watershed Protection Program. I am an original co-sponsor of the Fracturing Responsibility and Awareness of Chemicals Act (HR 1084) which would regulate fracking and protect the quality of New York City's water supply.

"These new requirements should not hinder any company drilling for natural gas in a safe and secure manner. Having the Interior Department involved in protecting our water supply is exactly why we have an Interior Department. It is the utmost of importance to have clean and uncontaminated water. I applaud the Administration for taking these steps, and I urge my colleagues to support HR 1084 as we continue our efforts to protect our drinking water."

The Environmental Protection Agency (EPA) issued draft guidance to clarify how companies can comply with a law, passed by Congress in 2005, exempting hydraulic fracturing operations from the requirement to obtain certain permits, except in cases where diesel fuel is used as a fracturing fluid.

Diesel fuel is commonly defined to be a compound that contains several toxic chemicals including Ethylbenzene, Benzene and Toluene. It also contains Polycyclic Aromatic Hydrocarbons (PAHs). PAHs and Benzene are both known to cause cancer. The Energy Policy Act of 2005 exempted hydraulic fracturing from complying with the Safe Drinking Water Act, except when it comes to diesel fuel. EPA has taken seven years to try to define the term. A House Energy and Commerce Committee probe showed oil and gas companies injected 32.2 million gallons of fluids with diesel fuel into wells in 19 states from 2005 to 2009 without federal approval.

Rep. Engel said, "The EPA estimates the draft guidance would apply to roughly two percent of hydraulically fractured wells. That's not taking into account any changing technology or industry practices which would phase out the use of diesel fuel in fracking . It's indisputable that diesel fuel is toxic to humans. Diesel has its uses, but needs to be kept far away from our drinking water. Industry is not allowed to use diesel fuel in this manner without seeking appropriate federal permits, and yet they are doing it anyway. This EPA action is long overdue and vital to public health."

For any query with respect to this article or any other content requirement, please contact Editor at htsyndication@hindustantimes.com

Fitch: Federal Fracking Rules Easy on Public Power

Business Wire - Thursday, May 10, 2012
Author: Fitch Ratings Dennis Pidherny, +1-212-908-0738 Senior Director U.S. Public Power One State Street Plaza New York, NY or Rob Rowan, +1-212- 908-9159 Senior Director Fitch Wire or Media Relations Sandro Scenga, New York, +1-212-908-0278 sandro.scenga@fitchratings.com

Fitch believes the recent proposed expansion of rules concerning fracking is unlikely to increase natural gas prices and/or wholesale power costs over the near term, largely because of the narrow scope of the rules. Therefore, the impact on public power providers is expected to be limited over the short term. However, public power entities could be forced to increase rates if more aggressive regulation that drives gas and power prices higher is implemented.

On May 8, the U.S. Department of Interior proposed rules governing oil and gas fracking on federal lands. If made into regulations, they would be the first new ones concerning federal lands since 1988. The proposed rules, however, are narrow in scope and are unlikely to change the economics of fracking in their current form. They are limited to federal lands accounting for about 25% of wells, with the remaining 75% being drilled mainly on private land. Even on federal land, the new rules would add incremental costs that are easily eclipsed by the profit derived from wells.

Since the beginning of 2010, public power entities have generally benefited from the decline in natural gas and wholesale power prices. Most of the new capacity put to work in the U.S. in the past two years has been relatively low-cost, gas-fired production. The reduction in natural gas fuel costs and purchased power has allowed many public power units to comply with pollution and other environmental controls while keeping rate increases to a minimum.

Utilities may face additional capital expenditures as the conversion to gas continues. We expect that expenditures will be largely debt financed by many public power and vertically integrated systems and that related costs will ultimately be recovered by ratepayers. However, options for financing similar conversions for many entities in the merchant sector may be limited.

While public power will likely be stable this year, we believe that aggressive implementation of new environmental rules related to fracking , and the potential for higher gas costs, is a risk to the sector given its increasing reliance on the fuel. We will continue to track the development of those regulations in the future.

Additional information is available on www.fitchratings.com.

The above article originally appeared as a post on the Fitch Wire credit market commentary page. The original article, which may include hyperlinks to companies and current ratings, can be accessed at www.fitchratings.com. All opinions expressed are those of Fitch Ratings.

The Durango Herald
Durango Herald, The (CO) - Thursday, May 10, 2012
Author: Emery Cowan

FARMINGTON – New and pending requirements for the disclosure of chemicals used in hydraulic fracturing operations are among the top regulatory issues at a regional natural-gas and oil industry two-day conference that will wrap up today.

More than 2,200 people from government and industry attended the Four Corners Oil and Gas Conference in Farmington. The conference, in its 11th year, aims to educate the local industry about new technologies, current regulations, and environmental and safety-compliance issues.

In a Wednesday session about regulatory updates, officials from New Mexico, Colorado and the Bureau of Land Management outlined regulations pending or recently passed in each of their agencies.

All of them require drilling companies to publish the ingredients in chemically laced water and sand mixtures injected into wells during fracking operations.

Colorado passed such legislation this year, and the law applies to all wells drilled after April 1. The state also is pursuing several strategies to facilitate cooperation between industry, government and the public, including a state-wide stakeholder task force and an intergovernmental agreement between Gunnison County and the state regarding natural-gas and oil inspectors.

The BLM is proposing disclosure requirements for all wells drilled on federal and tribal lands.

That proposal, which mandates companies list chemicals used in the fracking process, the source of water for the drilling and their plan of disposing of recovered fluids, is currently in a comment period, said Dave Mankiewicz, minerals manager for theBLM’s Farmington field office.

Horizontal-drilling technologies, primarily hydraulic fracturing , have played a big role in opening up new natural-gas plays across the country, including the Mancos Shale play that stretches across the northern portion of New Mexico and skims southern Colorado.

Low natural-gas prices haven’t stopped companies from continuing to explore the shale play, though most remain tight-lipped about what they’re finding because they are still jockeying for leaseholder interests in

the area, said John Roe, an engineer manager with Dugan Production.

“There is a big effort to try to understand the formation,” said Roe, who like many others, had signed a confidentiality agreement about his company’s work on the Mancos Shale.

Geothermal energy was another topic of discussion at the conference. Oil and gas companies have the technology and the know-how to access geothermal sources, making it a topic of interest among those looking to diversify their energy portfolio, Roe said.

There is geothermal potential around the edges of the San Juan Basin, and it is already being developed near Los Alamos, N.M., said Tyson Foutz, a petroleum engineer for Merrion Oil and Gas.

Among renewable-power sources, geothermal is one of the most economically viable, Foutz said.

“It has been a topic of interest (among drillers) for some time,” he said.

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Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels --Draft: Underground Injection Control Program Guidance #84 - ACTION: Request for Comment on Draft Guidance Document.

Federal Register (USA) - Thursday, May 10, 2012

SUMMARY: EPA is taking comment on a draft document that describes Underground Injection Control (UIC) Program guidance for permitting the underground injection of oil- and gas-related hydraulic fracturing (HF) using diesel fuels where the U.S. Environmental Protection Agency (EPA) is the permitting authority. The draft guidance includes EPA's interpretation of the Safe Drinking Water Act (SDWA) and regulations regarding UIC permitting of oil and gas hydraulic fracturing operations using diesel fuels as a fracturing fluid or as a component of a fracturing fluid, specifically that they are subject to Class II UIC permitting requirements. EPA's goal is to provide greater regulatory clarity and certainty to the industry, which will in turn improve compliance with the SDWA requirements and strengthen environmental protections consistent with existing law. The draft guidance will not impose any new requirements. See Supporting Information section.

DATES: EPA will consider comments received on or before July 9, 2012.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OW- 2011-1013 by one of the following methods:

. www.regulations.gov: Follow the on-line instructions for submitting comments.

. Email: OW-Docket@epa.gov@epa.gov.

. Mail: Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels--Draft, Environmental Protection Agency, Mailcode: 4606M, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

. Hand Delivery: Office of Water (OW) Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave. NW., Washington, DC. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-HQ-OW-2011-

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1013. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other

information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through www.regulations.gov. The www.regulations.gov Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to EPA without going through www.regulations.gov your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD- ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at http://www.epa.gov/epahome/dockets.htm.

Docket: All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the OW Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the OW Docket is (202) 566-2426.

FOR FURTHER INFORMATION CONTACT: Chitra Kumar, Underground Injection Control Program, Drinking Water Protection Division, Office of Ground Water and Drinking Water (MC-4606M), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460; telephone number: (202) 564-2232; email address: kumar.chitra@epa.gov. For general information, visit the Underground Injection Control Program's Hydraulic Fracturing and the Safe Drinking Water Act Web site, http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/ hydraulic -fracturing .cfm.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

Underground injection of fluids through wells is subject to the requirements of the SDWA except where specifically excluded by the statute. In the 2005 Energy Policy Act (EP Act), Congress revised the SDWA definition of "underground injection" to specifically exclude from UIC regulation the "underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities" (SDWA Section 1421(d)(1)(B)). UIC regulations further provide that "[a]ny underground injection, except into a well authorized by rule or except as authorized by permit issued under the UIC program, is prohibited" (40 CFR 144.11). Thus, owners or operators who inject diesel fuels during HF related to oil, gas, or geothermal operations must obtain a UIC permit before injection begins. While the EP Act references HF related to geothermal activities, the draft guidance only covers hydraulic fracturing using diesel fuels related to oil and gas activities. Permits for oil and gas HF using diesel fuels are available through the UIC Class II Program, the well class for oil and gas activities. *1

*1 Geothermal activities are not considered Class II.

The guidance provides information on SDWA UIC Class II requirements and recommendations for permitting hydraulic fracturing injection wells where diesel fuels are used in fluids or propping agents. The guidance is intended for EPA permit writers and, as a result, is relevant where EPA directly implements the UIC Class II program. Implementation of the UIC Program may be carried out by EPA Regions, or by states, tribes, or territories, depending on whether a state has received primary enforcement responsibility (primacy) approval from EPA to implement the UIC Program (Reference to "states" includes tribes and territories pursuant to 40 CFR 144.3). To the extent that states may choose to follow some aspects of

EPA guidance in implementing their own programs, it may also be relevant in areas where EPA is not the permitting authority. Information on states that have primacy is available at http://water.epa.gov/type/groundwater/uic/Primacy.cfm.

Recommendations in this draft guidance may change based on the comments we receive on the draft publication and this will be reflected in the final guidance. EPA understands that a permit writer who receives a permit application in the interim period before this guidance is finalized will have to make decisions about how to permit diesel fuels hydraulic fracturing wells. While this guidance undergoes public notice and comment, EPA expects that decisions about permitting hydraulic fracturing operations that use diesel fuels will be made on a case-by-case basis, considering the facts and circumstances of the specific injection activity and applicable statutes, regulations and case law, and will not cite to this draft guidance as a basis for decision.

Decisions made regarding a particular permit will be based on the applicable statutes, regulations, and case law, and at times may differ from the recommendations described in this guidance. Thus, this document will not impose legally binding requirements and will not be implemented as binding in practice; nor will it impose any obligations on private parties. Legally binding requirements for injection wells are found at 40 CFR Parts 124 and 144 through 148.

EPA UIC permit writers reviewing diesel fuels HF permit applications should refer to the provisions at 40 CFR Parts 124 and 144 through 147 as they make permitting decisions. This guidance does not substitute for UIC Class II regulations and is not itself a regulation. EPA focused on specific topics in this guidance, which are useful for tailoring Class II requirements to the unique attributes of hydraulic fracturing when diesel fuels are used.

The technical topics covered in the draft guidance include: A description of diesel fuels; authorizing multiple wells through area permits; establishing a permit duration and applying UIC well closure requirements; considerations for application submission and review; determining an area of review; permit application materials; well construction requirements for both newly constructed and already constructed wells; operation, mechanical integrity, monitoring and reporting requirements; applicable financial responsibility requirements; and public notification and environmental justice considerations.

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B. What should I consider as I prepare my comments for EPA?

1. Submitting CBI. Do not submit this information to EPA through www.regulations.gov or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD-ROM that you mail to EPA, mark the outside of the disk or CD-ROM as CBI and then identify electronically within the disk or CD-ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. Tips for Preparing Your Comments. When submitting comments, remember to:

. Identify the guidance by docket number and other identifying information (subject heading, Federal Register date and page number).

. Follow directions--The agency may ask you to respond to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.

. Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.

. Describe any assumptions and provide any technical information and/or data that you used.

. If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.

. Provide specific examples to illustrate your concerns, and suggest alternatives.

. Explain your views as clearly as possible, avoiding the use of profanity or personal threats.

. Make sure to submit your comments by the comment period deadline identified.

3. Request for Comment:

EPA has decided to seek public input on the draft guidance because of the importance of the guidance to its Federal and state partners, to the regulated community, and to the public. Additionally, EPA believes considering and receiving public input will ensure that the guidance adequately addresses remaining questions raised about permitting HF using diesel fuels. This public comment opportunity will be available until July 9, 2012. Although the Administrative Procedure Act requirements for notice and comment do not apply, EPA will consider significant public comments and will address significant issues raised by the public when the final guidance is issued.

EPA will provide the final version of the guidance to permit writers where EPA is the UIC permitting authority. EPA expects that the interpretation and recommendations in the final guidance may also be useful to state permit writers.

EPA requests that commenters focus their comments on the following issues, as this will be most helpful to the Agency and facilitate efficient consideration of comments.

a. Diesel Fuels Description

1. The draft guidance recommends using six Chemical Abstracts Service Registry Numbers (CASRNs) as the basis for determining whether diesel fuels are used as fluids or propping agents pursuant to hydraulic fracturing operations related to oil or gas production activities. The draft guidance, directed toward EPA UIC permit writers, recommends considering whether any portion of the injectate has the following CASRNs, or is referred to by any of their associated common synonyms, some of which are provided as follows:

68334-30-5 Primary Name: Fuels, Diesel

Common Synonyms: Automotive diesel oil; Diesel fuel; Diesel oil (petroleum); Diesel oils; Diesel test fuel; Diesel fuels; Diesel Fuel No. 1; Diesel fuel [United Nations-North America (UN/NA) number 1993]; Diesel fuel oil; European Inventory of Existing Commercial Chemical Substances 269-822-7.

68476-34-6 Primary Name: Fuels, Diesel, No. 2

Common Synonyms: Diesel Fuel No. 2; Diesel fuels no. 2; EINECS 270-676-1, No. 2 Diesel Fuel

68476-30-2 Primary Name: Fuel Oil No. 2

Common Synonyms: Diesel fuel; Gas oil or diesel fuel or heating oil, light [UN1202] #2 Home heating oils; API No. 2 fuel oil; EINECS 270-671-4; Fuel Oil No. 2; Home heating oil No. 2; Number 2 burner fuel; Distillate fuel oils, light; Fuel No. 2; Fuel oil (No. 1, 2, 4, 5 or 6) [NA1993];

68476-31-3 Primary Name: Fuel Oil, No. 4

Common Synonyms: Caswell No. 333AB (A Caswell No. is an alphanumeric chemical identifier implemented by Robert L. Caswell in the 1960s and 1970s in conjunction with acceptable common names of pesticides names for labeling purposes); Cat cracker feed stock; EINECS 270-673-5; EPA Pesticide Chemical Code 063514; Fuel oil No. 4; Diesel Fuel No. 4

8008-20-6 Primary Name: Kerosene

Common Synonyms: JP-5 navy fuel/ marine diesel fuel; Deodorized kerosene; JP5 Jet fuel; AF 100 (Pesticide); Caswell No. 517; EINECS 232-366-4; EPA Pesticide Chemical Code 063501; Fuel oil No. 1; Fuels, kerosine; Shell 140; Shellsol 2046; Distillate fuel oils, light; Kerosene, straight run; Kerosine, (petroleum); Several Others

68410-00-4 Primary Name: Distillates (Petroleum), Crude Oil

Common Synonyms: Fuel, diesel (VDF) (U.S. EPA Substance Registry System), Straight PWN diesel (EPA SRS), Aruba gas oil; EINECS 270-072-8.

Based on the six listed CASRNs, a review of data available on the voluntary hydraulic fracturing chemical disclosure Web site, FracFocus (http://www.Fracfocus.org), in early August, 2011, suggested that approximately 2% of wells that hydraulically fracture would be subject to SDWA UIC permitting requirements in states where EPA administers the UIC Program. This estimate is necessarily approximate due to data limitations. In addition, EPA is aware that operational practices are rapidly evolving in this industry, and past practice with regard to the use of diesel fuels may not be reflective of future practice.

EPA selected these six CASRNs because either their primary name, or their common synonyms, contained the term "diesel fuel" and they meet the chemical and physical properties of "diesel fuel," as provided in the Toxic Substances Control Act (TSCA) Inventory. *2 The TSCA description reads as follows:

*2 TSCA Inventory Reporting Rule established the TSCA Inventory which now includes the identities of over 83,000 chemical substances.

Diesel fuel is a complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C20 and boiling in the range of approximately 163 [degrees] C to 357 [degrees] C (325 [degrees] F to 675 [degrees] F).

While this description provided in the guidance was derived from a particular CASRN in the TSCA Inventory, a number of chemical compounds could

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meet these characteristics, including all of the compounds included in the recommended list of CASRNs. These CASRNs are commonly identified as diesel fuels by other industry and regulatory applications, as well.

Alternative Descriptions: EPA also reviewed a number of alternative descriptions, as follows:

A. Diesel fuel is:

. A complex combination of hydrocarbons produced by the distillation of crude oil or the processing of other petroleum-derived hydrocarbons; and

. Having a carbon number range of C9 to C20; and

. Having a boiling point range of 163 degrees Centigrade ([degrees] C) to 357 [degrees] C (325 degrees Fahrenheit ([degrees] F) to 675 [degrees] F); and

. Could be used to run a diesel engine;

or

. Has any of the CASRNs, 68334-30-5, 68476-30-2, 68476-31-3, 68476-34-6, 8008-20-6, or 68410-00-4.

To address the possibility that permit requirements could be avoided for substances that are essentially the same as the diesel fuels description provided in the guidance even if they are not known by the name "diesel fuels," EPA considered this diesel fuels description consisting of the chemical, physical, and use-based attributes of diesel fuels along with a list of CASRNs. One such compound, which does not have the synonym, "diesel fuels," but has the same chemical and physical characteristics of diesel fuels and could be used to run a diesel engine, is CASRN 64741-44-2, Distillates (petroleum), Straight run middle; Gas oil; Gas oil, blend, EINECS 265-044-7. EPA also recognizes that new compounds are regularly introduced into the market and may meet the physical and chemical criteria of this TSCA description, and may or may not contain the words "diesel fuels" in the primary name or any of its synonyms.

This description does not correspond solely to a specific set of CAS Registry Numbers. Thus, under this approach, EPA is not able to estimate the number of oil and gas wells that hydraulically fracture that would be subject to UIC permitting requirements in states where EPA is the permitting authority.

B. Diesel fuel is a complex combination of hydrocarbons produced by the distillation of crude oil or the processing of other petroleum-derived hydrocarbons, having a carbon number range within C9 to C20 and a boiling point range within 163 [degrees] to 357 [degrees] C (325 [degrees] F to 675 [degrees] F) and that may contain impurities, or are otherwise identified as diesel fuel. This approach would cover a greater number of CASRNs than the recommended description. EPA is not recommending this approach because it would include some compounds that are not suitable to run in a diesel engine, which is a consideration in several of the existing descriptions of diesel fuels that EPA reviewed.

C. Diesel fuel is a complex combination of hydrocarbons produced by the distillation of crude oil or the processing of other petroleum-derived hydrocarbons, having carbon numbers predominately in the range of C9 to C20 and a boiling point range of approximately 163 degrees [degrees] C to 357 [degrees] C (325 degrees [degrees] F to 675 [degrees] F) and that may contain impurities. Under this description diesel fuels include any petroleum derived substance with CASRN's that overlap the diesel fuel predominant carbon range or boiling point range, or are otherwise identified as diesel fuel. This approach would cover a much greater number of CASRNs than the recommended description. EPA is not recommending this approach because it would include many compounds that are not suitable to run in a diesel engine, and would be challenging for permit writers and applicants to implement, based on the common methods of determining the composition of fracturing fluids.

Questions Related to the Diesel Fuels Description

Do the six CASRNs in the recommended description adequately describe diesel fuels? If not, what other factors should be considered in the definition? Are there additional CASRNs that should be included? Are there any among the six that do not belong? Please address the relative importance of having a description that is static and unchanged versus capturing new chemical compounds being developed that are substantially similar to the six recommended CASRNs.

. Would a description based on chemical, physical and use-based attributes, such as the five-consideration alternative EPA considered in (i), more adequately and appropriately characterize diesel fuels in a manner that prevents endangerment of human health and underground sources of drinking water on an ongoing basis? Are there other ways the Agency could address any existing or newly developed compounds, such as CASRN 64741-44-2, not on the current list of six CASRNs in the draft guidance that may meet the chemical, physical and use-based attributes of the six CASRNs of the recommended description of diesel fuels, whether or not they have "diesel fuels" in the name or description?

. Would approach (ii), based on the strict limits of the TSCA physical and chemical characteristics, but with no reference to suitability for use in a diesel engine, be a more appropriate description for permitting diesel fuels under the EPA UIC Program? Please explain why this approach is preferred.

. Would approach (iii), which captures many more compounds that may or may not be suitable to run a diesel engine, more adequately and appropriately characterize diesel fuels for EPA UIC permitting purposes? How would you suggest permit writers and applicants efficiently and effectively identify chemicals meeting this description?

. What other approaches should EPA consider in describing diesel fuels?

In the 2005 Energy Policy Act, Congress revised the SDWA definition of "underground injection" to specifically exclude from UIC regulation the "underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities" (SDWA Section 1421(d)(1)(B)). The Energy Policy Act of 2005 does not specify a threshold concentration or percentage of diesel fuels in the HF injectate that would qualify for exclusion from regulation. EPA requests comment on whether some de minimis level of diesel fuel constituents in HF fluids or propping agents should be used. Commenters who support such an approach should also recommend how such a de minimis standard should be defined or described and explain the basis for their recommendations.

b. Diesel Fuels Usage Information

Questions Related to Diesel Fuels Usage Information

. EPA seeks reliable data about volumes and frequency of diesel fuel usage in hydraulic fracturing fluids or propping agents (based on the recommended description). EPA welcomes data of this nature at any time.

. In developing the draft guidance, EPA found that the primary uses of diesel fuels in hydraulic fracturing are as a primary base (or carrier) fluid, or added to hydraulic fracturing fluids as a component of a chemical additive. In some cases diesel fuels-based fracturing fluids are more efficient for transporting and delivering propping agents into fractures, as compared to water-based compounds. As an additive component,

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diesel fuels may be used for a range of purposes, including adjusting fluid properties (e.g., viscosity and lubricity) or as a solvent to aid in the delivery of gelling agents. EPA seeks additional information on the uses of diesel fuels during underground injection associated with hydraulic fracturing , and information about the efficacy of any substitutes for diesel fuels, including where substitution may be infeasible or raise other technical issues.

c. Permit Duration and Well Closure

UIC regulations provide for Class II permits to be issued up to the operating life of the facility, or for a shorter period. Class II UIC permits usually extend through the time of plugging, abandonment and closure of a well. However, because hydraulic fracturing activities are immediately followed by oil or gas production, the draft guidance recommends two approaches for permitting wells allowable under the UIC Class II regulations to address the unique nature of hydraulic fracturing . EPA permit writers may: (1) Issue short-duration permits and convert wells out of the UIC program upon completion of the diesel fuels hydraulic fracturing activity, or (2) they may assign the well to "temporarily abandoned" status. The first approach releases the well from UIC requirements after the permit expires, while the second maintains the permit in active status until final plugging and abandonment of the well, with the possibility of reduced monitoring and reporting during production. The second approach may be beneficial to operators who might conduct future hydraulic fracturing of the well using diesel fuel, as it would avoid the need for them to obtain a new UIC permit for this activity.

Question Related to Permit Duration and Well Closure

. What additional approaches should EPA consider for UIC permitting of diesel fuels hydraulic fracturing injection wells to effectively address well closure, plugging and abandonment requirements?

d. Area of Review.

Delineating and evaluating an AoR is one of the cornerstones of the UIC Program. It ensures that there are no conduits in the vicinity of the injection well that could enable fluids to migrate into USDWs. Before proceeding with the project, owners or operators must define the appropriate AoR; assess that area for conduits of potential fluid movement; and, if necessary, perform corrective action, such as the plugging of improperly abandoned and orphaned wells, or re-siting the well to account for any conduits that could potentially cause migration of contaminants into USDWs. There are two methods for delineating AoR: (1) Determining the zone of endangering influence (ZEI), or (2) using a minimum one-quarter (1/4) mile fixed radius around the well. The recommended approach in the draft guidance provides four alternatives to these approaches that address the importance of using a site-specific area of review calculation and take into account not only the wellhead, but also the horizontal section of the well. EPA also recommends EPA permit writers avoid using the modified Theis equation when delineating the AoR.

Questions Related to Area of Review

. What additional area of review delineation approaches would you consider effective for the purposes of permitting hydraulic fracturing using diesel fuels?

. How would you ensure that the area of review appropriately accounts for the horizontally drilled sections of the well without being computationally burdensome?

. Are there circumstances where it would be appropriate to use the standard approaches (e.g., 1/4 mile radius around the well) for determining AoR? Commenters should explain how the standard approach would provide appropriate protection for USDWs.

e. Information Submitted With the Permit Application

Information submitted and evaluated during the permit application process supports permitting decisions and ensures that appropriate safeguards (e.g., permit conditions) are established to prevent or remedy contamination to USDWs. HF using diesel fuels may pose a number of unique risks to USDWs. Due to high injection pressures, there is potential to induce fractures that may serve as conduits for fluid migration, including harmful chemicals found in diesel fuels. In addition, there has been concern about induced seismic events related to Class II activities. The UIC regulations allow flexibility in permitting to account for local conditions and practices. Under 40 CFR 144.52(a)(9), EPA permit writers may request and review additional information from the owner or operator when evaluating a permit application for a diesel fuels HF well .

Questions Related to Information Submitted With the Permit Application

. Standard industry research and exploration field collections, such as geologic cores, outcrop data, seismic surveys, and well logs, provide additional data on the injection and confining zones, including their areal extent, mineralogy, porosity, permeability, and capillary pressures and geology or facies changes. Access to this data could provide EPA with critical information needed to make effective permit determinations. Should EPA recommend collection of such data with the permit application? Commenters should consider the relative importance of these data to protection of human health and underground sources of drinking water versus any additional workload for applicants.

. Geomechanical characteristics of the confining zone such as, information on fractures, stress, ductility, rock strength, and in situ fluid pressures, help predict the propagation of fractures and indicate the potential risk of fluid migration. Should EPA recommend collection of geomechanical data with the permit application to assist EPA in making effective permit determinations? Commenters should consider the relative importance of these data to protection of human health and underground sources of drinking water versus any additional workload for applicants.

. Should the Agency request submittal of seismic data, such as the presence and depth of known seismic events and a determination that injection would not cause seismicity that interferes with containment, with the permit application? How useful would inclusion of these data be to minimize potential risk of endangerment to USDWs? Please provide rationale in support of your response.

. What other information, if any, should EPA recommend be submitted with the permit application to make permitting decisions that are protective of human health and underground sources of drinking water?

f. Monitoring

Question Related to Monitoring

. The recommended monitoring approaches include specifications for mechanical integrity testing prior to and after hydraulic fracturing injection using diesel fuels. These recommendations ensure that the well maintains integrity during operations, given the high pressures and nature of fluids injected during hydraulic fracturing . What additional approaches for monitoring of well integrity should EPA consider to ensure safe and effective injection well operation?

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. According to standard industry monitoring practice, data are collected through means such as microseismic monitoring and/or tiltmeter monitoring to characterize the actual fracture network and compare it with the predictive fracture model. Should EPA include a microseismic and/or tiltmeter monitoring, or any other approaches, in the guidance recommendations, to ensure that the fracture network does not pose a potential risk to USDWs? Please provide a rationale for your answer.

. Baseline and periodic monitoring of water quality for all USDWs within the area of review help demonstrate the protectiveness of permitted operations and are recommended by the American Petroleum Institute (HF1, 2009). Water quality monitoring can be especially important in cases where owners or operators wish to exercise a flexibility recommended in the guidance of either being released from the UIC program or operating as temporarily abandoned after injection has ceased and production has begun. To utilize these flexibilities, owners or operators need to demonstrate that their operations have not (or will not) endangered USDWs in the project area. Should EPA include baseline and/or periodic monitoring of USDWs as a recommended monitoring approach in the guidance? If so, what water quality monitoring data should be included to best ensure non-endangerment of USDWs?

Dated: May 4, 2012.

Nancy K. Stoner,

Acting Assistant Administrator, Office of Water.

[FR Doc. 2012-11288 Filed 5-9-12; 8:45 am]

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[EPA-OW-EPA-HQ-OW-2011-1013; FRL-9671-1]

Notices

Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels --Draft: Underground Injection Control Program Guidance #84 - Federal Register Extracts
Government Press Releases (USA) - Thursday, May 10, 2012
SUMMARY: EPA is taking comment on a draft document that describes Underground Injection Control

(UIC) Program guidance for permitting the underground injection of oil- and gas-related hydraulic fracturing (HF) using diesel fuels where the U.S. Environmental Protection Agency (EPA) is the permitting authority. The draft guidance includes EPA's interpretation of the Safe Drinking Water Act (SDWA) and regulations regarding UIC permitting of oil and gas hydraulic fracturing operations using diesel fuels as a fracturing fluid or as a component of a fracturing fluid, specifically that they are subject to Class II UIC permitting requirements. EPA's goal is to provide greater regulatory clarity and certainty to the industry, which will in turn improve compliance with the SDWA requirements and strengthen environmental protections consistent with existing law. The draft guidance will not impose any new requirements. See Supporting Information section.

DATES: EPA will consider comments received on or before July 9, 2012.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OW-2011-1013 by one of the following methods:

* www.regulations.gov: Follow the on-line instructions for submitting comments.

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Docket: All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the OW Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the OW Docket is (202) 566-2426.

FOR FURTHER INFORMATION CONTACT: Chitra Kumar, Underground Injection Control Program, Drinking Water Protection Division, Office of Ground Water and Drinking Water (MC-4606M), Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Washington, DC 20460; telephone number: (202) 564-2232; email address: kumar.chitra@epa.gov. For general information, visit the

Underground Injection Control Program's Hydraulic Fracturing and the Safe Drinking Water Act Web site, http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/ hydraulic-fracturing .cfm.

SUPPLEMENTARY INFORMATION:

I. General Information

A. Does this action apply to me?

Underground injection of fluids through wells is subject to the requirements of the SDWA except where specifically excluded by the statute. In the 2005 Energy Policy Act (EP Act), Congress revised the SDWA definition of "underground injection" to specifically exclude from UIC regulation the "underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities" (SDWA Section 1421(d)(1)(B)). UIC regulations further provide that "[a]ny underground injection, except into a well authorized by rule or except as authorized by permit issued under the UIC program, is prohibited" (40 CFR 144.11). Thus, owners or operators who inject diesel fuels during HF related to oil, gas, or geothermal operations must obtain a UIC permit before injection begins. While the EP Act references HF related to geothermal activities, the draft guidance only covers hydraulic fracturing using diesel fuels related to oil and gas activities. Permits for oil and gas HF using diesel fuels are available through the UIC Class II Program, the well class for oil and gas activities. /1/

FOOTNOTE 1 Geothermal activities are not considered Class II. END FOOTNOTE

The guidance provides information on SDWA UIC Class II requirements and recommendations for permitting hydraulic fracturing injection wells where diesel fuels are used in fluids or propping agents. The guidance is intended for EPA permit writers and, as a result, is relevant where EPA directly implements the UIC Class II program. Implementation of the UIC Program may be carried out by EPA Regions, or by states, tribes, or territories, depending on whether a state has received primary enforcement responsibility (primacy) approval from EPA to implement the UIC Program (Reference to "states" includes tribes and territories pursuant to 40 CFR 144.3). To the extent that states may choose to follow some aspects of EPA guidance in implementing their own programs, it may also be relevant in areas where EPA is not the permitting authority. Information on states that have primacy is available at http://water.epa.gov/type/groundwater/uic/Primacy.cfm.

Recommendations in this draft guidance may change based on the comments we receive on the draft publication and this will be reflected in the final guidance. EPA understands that a permit writer who receives a permit application in the interim period before this guidance is finalized will have to make decisions about how to permit diesel fuels hydraulic fracturing wells. While this guidance undergoes public notice and comment, EPA expects that decisions about permitting hydraulic fracturing operations that use diesel fuels will be made on a case-by-case basis, considering the facts and circumstances of the specific injection activity and applicable statutes, regulations and case law, and will not cite to this draft guidance as a basis for decision.

Decisions made regarding a particular permit will be based on the applicable statutes, regulations, and case law, and at times may differ from the recommendations described in this guidance. Thus, this document will not impose legally binding requirements and will not be implemented as binding in practice; nor will it impose any obligations on private parties. Legally binding requirements for injection wells are found at 40 CFR Parts 124 and 144 through 148.

EPA UIC permit writers reviewing diesel fuels HF permit applications should refer to the provisions at 40 CFR Parts 124 and 144 through 147 as they make permitting decisions. This guidance does not substitute for UIC Class II regulations and is not itself a regulation. EPA focused on specific topics in this guidance, which are useful for tailoring Class II requirements to the unique attributes of hydraulic fracturing when diesel fuels are used.

The technical topics covered in the draft guidance include: A description of diesel fuels; authorizing

multiple wells through area permits; establishing a permit duration and applying UIC well closure requirements; considerations for application submission and review; determining an area of review; permit application materials; well construction requirements for both newly constructed and already constructed wells; operation, mechanical integrity, monitoring and reporting requirements; applicable financial responsibility requirements; and public notification and environmental justice considerations.

B. What should I consider as I prepare my comments for EPA?

1. Submitting CBI. Do not submit this information to EPA through www.regulations.gov or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD-ROM that you mail to EPA, mark the outside of the disk or CD-ROM as CBI and then identify electronically within the disk or CD-ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. Tips for Preparing Your Comments. When submitting comments, remember to:

--This is a summary of a Federal Register article originally published on the page number listed below--

Request for Comment on Draft Guidance Document.

Citation: "77 FR 27451"

Document Number: "EPA-OW-EPA-HQ-OW-2011-1013; FRL-9671-1"

Federal Register Page Number: "27451"

"Notices"

FRACK FINDINGS - OBAMA'S PLAN FOR DRILLING PUBLIC LANDS IS WEAK

Pittsburgh Post-Gazette (PA) - Thursday, May 10, 2012

The Obama administration's proposed rule for hydraulic oil and gas drilling on public lands is the equivalent of closing the barn door after the horses have escaped.

The Interior Department issued a proposal Friday that calls for companies to disclose the chemicals used in extracting gas and oil from shale deposits deep underground. The problem is, unlike an earlier plan that would have required them to release the information at least 30 days before starting a well, the new provision says the contents of the fracking fluid -- water, sand and chemicals -- don't have to be divulged until after drilling is over.

That's hardly proactive.

The rule was supposed to address concerns raised by environmentalists, scientists, politicians and landowners about potential groundwater contamination and the treatment of tainted water that flows out of wells during and after drilling. In particular, researchers and physicians say knowing the contents of the chemicals used to extract gas and oil is key in pinpointing potential health issues.

But the Obama administration, under criticism from Republicans and industry officials for the president's energy policies, bowed to drillers' objections. They said the additional paperwork would slow the permitting process and could jeopardize trade secrets. It decided scientists would be able to use the records to trace any future contamination after the fact, and that there was no reason to require disclosure in advance of drilling.

The federal rule would apply only to 3,000 or so wells drilled each year on 700 million acres of public land administered by the Interior Department's Bureau of Land Management and another 56 million acres of Indian land. Regulation of drilling on private land -- the majority of the 13,000 wells drilled each year --

falls to the states, and some already require prior disclosure of fracking chemicals.

The rule for public lands should be at least as stringent as those being imposed by states. The watered-down rule announced last week is too weak.

State to boost number of oil , gas inspectors Staffing could triple ; 50,000 sites unchecked
Plain Dealer, The (Cleveland, OH) - Thursday, May 10, 2012
Author: Alison Grant, Plain Dealer Reporter

Ohio expects to triple the number of its oil and gas field inspectors, as horizontal drilling and fracking of shale formations intensify and move west across the state.

The Ohio Department of Natural Resources wants to have 90 inspectors in the field by early next year, up from more than 30 today, spokeswoman Heidi Hetzel-Evans said.

State regulators are scrambling to keep up with Ohio's latest energy push. They inspected 18 percent of the state's 64,481 operating wells in 2011, leaving more than 50,000 wells unchecked.

"It's almost a daunting task, but you've got to do the best you can," said Gene Chini, district supervisor of the north region of the Division of Oil and Gas Resources Management.

Since 2009, Ohio has inspected a smaller share of its wells than its neighbor in the shale boom, Pennsylvania. Ohio's inspections also lagged those in three other big oil- and gas-producing states – Texas, Colorado and Oklahoma, though funding shortfalls in Oklahoma have cut inspection rates almost in half in recent years.

By Kari Matsko's reckoning, hundreds of thousands of Ohio oil and gas wells go without annual inspections.

Matsko, director of the People's Oil and Gas Collaborative, a grass-roots group in Lake County, said the state has more than 275,000 wells when adding in those that are plugged or abandoned.

Some of them pose contamination danger, she said, pointing to a finding by federal investigators that natural gas in two residential water wells in Medina could have migrated from an abandoned gas well.

"Wells require a lifetime of care and feeding," said Matsko. "They never go away."

But others contend the focus most keenly belongs on wells under construction. Meanwhile, many existing wells are scant producers.

"Keep in mind that many of the 64,000 wells are classified as marginal wells that may produce less than 10 barrels of oil a year," said Rhonda Reda, executive director of the Ohio Oil and Gas Energy Education Program, which does public outreach for the industry. "If you took those out of there, I think you would look at a very high rate of visits [inspections] for those that are producing significant volume."

James Zehringer, ODNR director, said the agency has begun hiring and training additional inspectors to ensure that shale wells are correctly built and inspected.

Natural gas and oil reserves in Ohio's Utica shale formations have attracted a rush of major companies leasing rights to drill horizontal wells and then fracture, or "frack," the rock to release the gas and oil. Sixteen horizontal wells have been drilled and completed; nine so far are in production.

Zehringer said money from permit fees for shale exploration and drilling will pay for new workers to help not only with inspections but also enforcement and administrative work.

"A strong regulatory staff at ODNR will enable inspectors to be present at every critical stage of well construction, ensuring these sophisticated structures are built in a manner that protects both people and

the ecosystem," Zehringer said in a prepared statement late Tuesday.

Chini, based in Uniontown in Summit County, said inspectors monitor new wells at key points in their construction. They're on site when the "conductor pipe" is installed in glacial drift or other loose surface material to keep gravelly layers from washing away and destabilizing the drilling rig.

They police installation of the "surface casing" that is cemented in place and protects groundwater. When available, they also monitor installation of the "production casing" that carries oil and gas out of the ground. And they monitor "frack jobs," when water under intense pressure is forced into well bores to fracture the shale.

If there is a violation, they continue to visit a well until it's corrected, Hetzel-Evans said.

Inspectors also check wells when they close and the well site is graded and reseeded.

The new shale push has also turned a spotlight on some of Ohio's old wells.

Landowners are asking inspectors to check wells that may have lapsed out of production. Property owners hope that happens because then they might be freed from old leases and able to negotiate new contracts that pay more per acre and have fatter production royalties.

"With the advent of this shale gas, the Utica play, we're getting a lot of calls," Chini said.

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Salazar lauds Utah drilling deal -- one enviros and industry back
Salt Lake Tribune, The (UT) - Thursday, May 10, 2012
Author: Brandon Loomis The Salt Lake Tribune

Interior Secretary Ken Salazar on Tuesday signed -- and hailed -- Utah's latest natural-gas drilling plan as an environmentally sensitive leap toward energy security.

Flanked by cooperative representatives from Anadarko Petroleum Corp. and the Southern Utah Wilderness Alliance at a pipeline compressor station in western Salt Lake City, Salazar signed his department's approval for the 3,675-well Greater Natural Buttes development south of Vernal. The eastern Utah project is expected to create several thousand jobs at peak construction and average 1,700 a year for a decade while pumping 6 trillion cubic feet of natural gas with enhanced emissions and vapor recovery.

Because Anadarko agreed to do it without infringing on the White River's wilderness qualities -- and even purchase river lands for protection -- SUWA endorsed the plan in what Salazar and Bureau of Land Management Director Bob Abbey called a model for collaboration.

"The world today," Salazar said, "should just simply stand back and say, 'Wow, how did they do it?' "

The development covers 163,000 acres, much of it previously disturbed by drilling, and the company will turn up soil on only 5 percent of the undisturbed acreage. The 3,675-well potential represents a significant boost to state output that just passed 10,000 oil and gas wells at the end of 2011.

Salazar used the election-year m oment to emphasize the Obama administration's advances in energy security. He said the nation slashed its oil imports by 10 percent, or a million barrels a day, in 2011, while cranking up natural gas output by 7 percent.

SUWA attorney Steve Bloch agreed that the plan is a good model for "win-win" development, protecting "one of Utah's most remarkable wilderness resources" for hunters and paddlers on the White River.

"It's an oasis in the desert," he said, "and a shrinking oasis."

Anadarko project manager Brad Holly said his company is grateful for the chance to develop a relationship with SUWA.

But the collaboration on this project hardly ends controversy over the administration's leasing and drilling policies for Utah. SUWA opposes another upcoming approval, of the Gasco project on the West Tavaputs Plateau, because it infringes on Desolation Canyon, a popular rafting launch on the Green River. Asked about that plan, Abbey acknowledged continued conflict, but said the project will be defensible.

"We did take the comments that we received to heart," Abbey said. "At the end of the day, there still may not necessarily be consensus."

Bloch later said that comment disappointed him, because it seems to indicate that the BLM is about to reward a company for refusing to negotiate as Anadarko did.

From Washington, Rep. Rob Bishop, R-Utah, praised the Anadarko project but criticized the administration for other impediments to drilling, including new national standards for hydraulic fracturing .

"This is good news for Utah and undoubtedly provides a glimmer of hope that all is not lost with this administration's policies on public-land use," Bishop said in a news release. "However, more can and should be done."

At full production, the Greater Natural Buttes field is expected to produce 3 percent to 4 percent of the Rocky Mountain region's gas. Holly said it is Anadarko's largest producer.

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Salazar lauds Utah drilling deal; enviros and industry on board
Caption: Photo: Photo: Paul Fraughton / Salt Lake Tribune Bob Abbey, director of the Bureau of Land Management, and Interior Secretary Ken Salazar -- appearing at pipline compressor station in west Salt Lake City -- sign approval for 3,675-well expansion of natural-gas drilling in eastern Utah. Tuesday, May 8, 2012

Eagle Ford boom busts old forecast

San Antonio Express-News (TX) - Thursday, May 10, 2012
Author: Vicki Vaughan, STAFF

The Eagle Ford Shale has been touted as a modern-day Spindletop, and a study released Wednesday underscored that view.

The vast oil and gas play in South Texas contributed $25 billion in total economic output to a 20-county South Texas region last year and provided 47,097 full-time jobs, according to a study prepared by the Center for Community and Business Research at the University of Texas at San Antonio's Institute for Economic Development.

In a single year - 2011 - the shale development added more economic oomph to South Texas than an earlier UTSA study predicted would occur over nearly a decade.

That earlier projection estimated that the Eagle Ford would account directly and indirectly for almost $21.5 billion in economic output by 2020.

The new study estimates that the shale will create 117,000 jobs by 2021, more than 11/2 times the 68,000 full-time jobs the earlier study had projected.

Thomas Tunstall, director of UTSA's research center and the study's lead investigator, said Wednesday's study is just the "first chapter" in its look at the shale's impact. In late summer, the center will look at workforce issues, while a third installment will provide more detailed data on a county-by-county basis.

UTSA officials said the earlier study was conservative, as is the current one. But shale production "has far exceeded the expectations outlined in the initial report because of rapidly evolving business activity," the study said.

"The Eagle Ford will ensure growth for our community for decades to come," said Curt Anastasio, CEO of San Antonio-based pipeline company NuStar Energy LP, who moderated the study's presentation at a luncheon Wednesday at the Grand Hyatt downtown.

A frenzy of drilling is sparking the boom. Oil production in the Eagle Ford increased more than sixfold in 2011 from 2010, and natural gas production more than doubled in the same period, UTSA estimated, using data from the Texas Railroad Commission.

UTSA officials stressed that the new study is a new "baseline" look at the effect of drilling in the shale. The current study examined 14 counties directly affected by drilling, along with six counties - including Bexar - that are indirectly involved in the development. America's Natural Gas Alliance paid $90,000 for the study.

In the 20-county region, the study estimated that $3.1 billion in salaries and benefits were paid to workers last year and that the shale impact amounted to $12.63 billion in gross regional product.

Also in the 20-county region, $257 million went into the coffers of local governments, while $358 million went to the state, including $120.4 million in severance taxes paid by drilling companies on production.

The 14 directly affected counties are Atascosa, Bee, DeWitt, Dimmit, Frio, Gonzales, Karnes, La Salle, Live Oak, Maverick, McMullen, Webb, Wilson and Zavala. The six that benefit from the drilling but don't have production are Bexar, Jim Wells, Nueces, San Patricio, Uvalde and Victoria counties.

In the 14 directly affected counties, total economic impact last year was estimated to be almost $20 billion, while the development supported 38,000 full-time jobs and added $211 million to local government revenue.

And all the shale drilling translated to fatter paychecks. As an example, Zavala County, "which had the lowest wages," grew from an average annual wage of $17,000 in the first quarter of 2005 to an average annual wage of $25,000 in the third quarter of 2011.

Most of the counties saw average weekly wages jump from about $450 to $550 a week to $600 to $700 a week, UTSA's Tunstall said.

The growing importance of the shale was evident by the number of officials who attended the luncheon, including Mayor Julián Castro, UTSA President Ricardo Romo, Texas House Speaker Joe Straus and Railroad Commissioner David Porter.

Earlier Wednesday, at a Real Estate Council of San Antonio breakfast at the Petroleum Club, Adam Haynes, senior director for corporate development and government relations at Chesapeake Energy Corp., estimated that there's at least 30 years of production in the Eagle Ford.

Haynes said he could take a high school graduate and put him to work until he retires, with the ability "to provide for his family like he's never been able to provide for his family."

Mark Witt, vice president and chief financial officer of San Antonio-based Lewis Energy Group, said the natural gas production company has 1,000 employees and plans to add 350 this year, with 50 of those jobs at its corporate headquarters.

"We've got generations of wealth here," Witt said. "We need to take advantage of it."

FROM GRAPHIC: Eagle Ford impact

From drilling and completing wells
(14 counties, 2011 alone)
$12.4 billion total economic impact
23,409 jobs supported (full-time)
$7 billion in gross regional product
$1.8 billion in salaries and benefits to workers

On Bexar County
$705 million in total economic impact 4,290 jobs supported $186 million in salaries and benefits

Source: Center for Community and Business Research, UTSA
vvaughan@express-news.net

Jennifer Hiller contributed to this report.
Caption: 1) Drilling rigs, such as this one near Tilden in McMullen County, have sprouted throughout counties in the Eagle Ford Shale. PHOTO: San Antonio Express-News file photo 2) Eagle Ford study: The impact of shale drilling totaled $25 billion in a 20-county area in 2011. Almost $20 billion was from 14 counties where drilling is active. (map) GRAPHIC: EXPRESS-NEWS 2) Helge Lund (right), CEO of Norwegian energy company Statoil, speaks with Talisman Energy hydraulic fracturing specialist Nabila Larsen at a site near Cotulla last year. One expert estimates that there's at least 30 years of production in the Eagle Ford. PHOTO: San Antonio Express-News file photo

MORE REGULATIONS ON FRACKING NEEDED TO PREVENT A DISASTER

San Jose Mercury News (CA) - Thursday, May 10, 2012
Author: Damon Nagami

Two years ago, the nation watched helplessly as 200 million gallons of oil spewed from a busted pipe a mile below the ocean's surface in the Gulf of Mexico. Eleven men lost their lives in the BP disaster. Thousands of fishermen and shrimpers lost their livelihoods. We now know that the U.S. Minerals Management Service, the agency charged with overseeing oil drilling, was too cozy with the oil industry and may have considered profits over protections.

Are we poised to repeat history here in California?

Hydraulic fracturing , or fracking , is emerging as a serious threat to California's natural resources and communities. Oil companies pump water, sand, and sometimes toxic chemicals into the ground to break up rock and force hard-to-reach oil to the surface -- despite the looming threats to water and air quality, a potential link to earthquakes and the production of enormous amounts of unregulated toxic waste.

Oil and gas fracking activities are being blamed for polluting groundwater in the East, Midwest and Rocky Mountain states. Studies by the Colorado School of Public Health and U.S. Geological Survey found an increased risk of significant health problems for people living near drilling and a greater risk of earthquakes when fracking wastewater is pumped into the ground. When pressed about these concerns, oil companies have been disturbingly sanguine.

While the Obama administration has announced regulations that would reduce air pollution from natural gas production activities, those wouldn't cover oil wells, and the EPA's study evaluating fracking 's threats to water quality won't come out until 2014. Moreover, because wastes from oil and gas development are exempt from federal regulation, toxic wastes are ending up in municipal facilities at taxpayer expense.

In California, the agency charged with overseeing oil drilling, the Division of Oil, Gas and Geothermal Resources, or DOGGR, could help fill these regulatory gaps, but so far it has done nothing despite taking millions of taxpayer dollars to deal with fracking . The agency doesn't know where fracking is happening because it doesn't require oil companies to track the activity. If no one knows where the wells are, how can we know the risks?

Perhaps due to increased public pressure, new leadership at DOGGR promises to make fracking safer in California. The agency recently committed to draft comprehensive regulations and hold public workshops across the state. DOGGR also plans to commission the California Council of Science and Technology, a nonpartisan think tank on scientific policy issues, to conduct an independent study on fracking in California.

At the same time, two bills are being proposed to increase transparency regarding where and how fracking is happening in California. AB"?591 (Wieckowski) would require companies to disclose what's in their fracking fluids and how much water they're using. SB"?1054 (Pavley) would require companies to notify adjacent landowners and tenants before fracking a well.

DOGGR's recent commitments and these two bills are promising, but more needs to be done. Too much is at stake to delay action on securing common-sense protective measures. We need to eliminate industry exemptions from the Safe Drinking Water Act and other environmental laws to establish basic federal safeguards. We also need leadership from the Legislature and the Brown administration to pass laws and hold oil companies accountable.

In the weeks after the BP disaster, the federal government overhauled the Minerals Management Service, which had lost its ability to regulate oil and gas companies effectively. DOGGR can show it doesn't deserve the same treatment by following through on commitments to protect Californians' public health and safety from unregulated fracking .

Damon Nagami is an attorney with the Natural Resources Defense Council in Los Angeles. He wrote this for this newspaper.

Resources
Targeted News Service (USA) - Thursday, May 10, 2012
WASHINGTON, May 10 -- The Subcommittee on Energy and Environment issued the following news release:

Today, the Subcommittee on Energy and Environment held a hearing to examine challenges and opportunities associated with expanding development and use of unconventional oil and gas production technologies. The hearing continued the Science, Space, and Technology Committee's ongoing efforts to consider key components of a true "all of the above" energy strategy.

Subcommittee Chairman Andy Harris (R-MD) said that "The Green River Basin, located in Colorado, Utah, and Wyoming, may contain up to three trillion barrels of oil--more potential oil than the rest of the world's current oil reserves combined." Harris said that "If this energy--which is overwhelmingly on Federal lands--is made available, I am confident American ingenuity will find ways to responsibly explore and produce this resource."

The International Energy Agency (IEA) projects conventional crude oil production will significantly decline in the coming decades. In order to meet projected global demand for energy, the world will need to expand production of unconventional oil, natural gas liquids, biofuels, and other substitutes.

However, the Administration's fiscal year 2013 budget request for the Department of Energy (DOE) proposes to eliminate almost all oil and gas research and development (R&D). Republicans today repeatedly questioned the Administration's anti-fossil fuel actions against the backdrop of President Obama's stated goal in his most recent State of the Union address to pursue an "all of the above" approach to energy.

Chairman Harris specifically asked Mr. Charles McConnell, DOE's Assistant Secretary for Fossil Energy, whether oil shale and oil sands are part of the President's "all of the above" strategy. Mr. McConnell stated that both resource bases are part of the President's energy mix, but later acknowledged that the Administration does not request funding to advance production technologies. [Watch the video HERE] http://youtu.be/q3XEXUnNyQw

Harris said: "It's disturbing that the Administration claims these vast resources are part of the President's approach, when in fact the budget provides no support for their development. This further confirms the President's 'all of the above' rhetoric is hollow and misleading, if not downright false."

Full Committee Chairman Ralph Hall (R-TX) raised similar concerns with respect to the Administration's support for shale gas production. "I would just note for the record that in his State of the Union speech, the President said 'it was public research dollars that helped develop the technologies to extract all this natural gas out of shale rock.' It is troubling that he is suggesting the Federal government made hydraulic fracturing possible while at the same time trying to kill R&D within the same program that he says deserves credit for the current oil and gas boom," Hall said.

Ms. Samantha Mary Julian, the Director of Utah's Office of Energy Development, today highlighted the State's efforts to develop its unconventional energy, noting "Despite the lack of efforts of some federal agencies, the unconventional energy industry is alive and growing in Utah."

Ms. Julian praised the benefits of expanded unconventional energy development on employment and education. "Utah actively manages its lands to promote the responsible development of its energy resources as it produces the main source of funding for our schools," Julian said. "Simply put, Utah educators and students depend on responsible energy development."

It is currently projected that American oil shale resources could yield an estimated 800 billion barrels of oil. Witnesses today stressed that continued advances and breakthroughs in technology will help facilitate the development of America's unconventional oil and gas resources. The President and CEO of US Seismic Inc., Mr. Jim Andersen, discussed how the new technology his company is developing will enable shale oil and gas producers "to improve efficiency, increase output, and enhance safety, all at a lower cost."

The CEO of US Oil Sands, Inc., Mr. Cameron Todd, further highlighted his company's anticipated pilot project to produce oil from oil sands, noting their innovative process uses "far less water, energy, surface area, and generates less greenhouse gas than any project to date."

Mr. Tony Dammer, the former Director of the DOE's Office of Naval Petroleum and Oil Shale Reserves, noted the Department of Energy has not implemented the policies contained in the Energy Policy Act of 2005 with respect to its responsibilities to develop oil shale. Dammer said that if the sections of the law "were implemented and the unconventional fuels development program was initiated within the DOE, uncertainty and inconsistency in policy would not exist today."

Additionally, Ms. Julian, Mr. Todd, and Mr. Dammer all stressed the need for access to Federal lands for energy development.

The following witnesses testified today before the Subcommittee:

Panel I

The Honorable Charles McConnell, Assistant Secretary for Fossil Energy, Department of Energyhttp://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/HHRG-112-%20SY20-WState-CMcConnell-20120510.pdf

Ms. Anu Mittal, Director, Natural Resources and Environment, U.S. Government Accountability Officehttp://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/HHRG-112-%20SY20-WState-AMittal-20120510.pdf

Panel II

Ms. Samantha Mary Julian, Director, Office of Energy Development, State of Utahhttp://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/HHRG-112-%20SY20-WState-SJulian-20120510.pdf

Mr. Jim Andersen, Chief Executive Officer and President, U.S. Seismic Systems, Inc.http://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/HHRG-112-%20SY20-WState-JAndersen-20120510.pdf

Mr. Cameron Todd, Chief Executive Officer, U.S. Oil Sands, Inc.http://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/HHRG-112-%20SY20-WState-CTodd-20120510.pdf

Mr. Anton (Tony) Dammer, Member, Board of Directors, National Oil Shale Associationhttp://science.house.gov/sites/republicans.science.house.gov/files/documents/hearings/HHRG-112-%20SY20-WState-ADammer-20120510_0.pdf

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Report: Five Primary Disposal Methods for Fracking Wastewater All Fail to Protect Public Health and Environment

Targeted News Service (USA) - Thursday, May 10, 2012

NEW YORK, May 9 -- The Natural Resources Defense Council issued the following news release:

All currently available options for dealing with contaminated wastewater from fracking are inadequate to protect human health and the environment, but stronger federal and state protections can better safeguard against the threats posed by this byproduct, according to a new report from the Natural Resources Defense Council. The report reveals how gas companies in Pennsylvania disposed of more than 1.3 billion gallons of wastewater last year and details the dangers presented by the disposal methods used.

"Contaminated wastewater has long been one of our biggest concerns about fracking , and this report confirms that current practices put both the environment and public health at risk," said NRDC attorney Rebecca Hammer. "Americans shouldn't have to trade their safe drinking water for fuel. We need strong safeguards on the books to ensure oil and gas companies aren't polluting our rivers, contaminating our drinking water or even risking man-made earthquakes when they come to frack in our communities."

The report, In Fracking 's Wake: New Rules Are Needed to Protect Our Health and Environment from Contaminated Wastewater, represents one of the most comprehensive reviews to date of the available options for disposing high-volume wastewater from fracking . It analyzes wastewater disposal practices in Pennsylvania last year, and provides recommendations for better protecting public health and the environment nationwide. It was co-authored by NRDC and an independent scientist.

Wastewater Disposal Methods

The five most common disposal options for fracking wastewater currently in use are: recycling for additional fracking , treatment and discharge to surface waters, underground injection, storage in open air pits, and spreading on roads for ice or dust control. All of these options present significant risks of harm to public health or the environment. And there are not sufficient rules in place to ensure any of them will not harm people or ecosystems.

Some of these methods present such great threats that they should be banned immediately. These methods include treatment at municipal sewage treatment plants and subsequent discharge into surface waters, storage in open air pits, and road spreading. Meanwhile recycling for reuse in fracking operations and underground injection into properly designed and sited disposal wells (that better protect against groundwater contamination and seismic activity) hold the most potential for improvement if strong safety standards are instituted for these methods.

Treatment at industrial facilities faces significant hurdles that may also be addressed with improved safeguards. But it would still remain a less preferable disposal method for a number of reasons, perhaps the most significant of which is the risks it would still pose to people's health in the event of a misstep, as

the treated wastewater is dumped into waterways that provide drinking water.

Pennsylvania Wastewater Disposal in 2011

In Pennsylvania, a large amount of the state's wastewater last year was released into bodies of water - including drinking water supplies - as a result of poor treatment practices. More than half of all fracking wastewater was sent to treatment plants - either industrial facilities or municipal sewage plants. Of this, about 10 percent - or about 84 million gallons - was sent to facilities that that the state has exempted from its most current water pollution limits, meaning it could be discharged with higher levels of contaminants than waste processed at updated plants.

When this wastewater is sent to municipal sewage facilities, harmful chemicals and other pollutants are merely diluted, rather than removed, and then released into surface waters, posing serious threats to the state's rivers, lakes and streams, as well as drinking water supplies. Industrial facilities, too, are often not designed to treat the contents of the wastewater, and can also release it into waterways or send it for reuse, after it is processed. Complete information about where industrial facilities sent processed wastewater in Pennsylvania last year was not made available by the state.

Additionally, about one-third of Pennsylvania's fracking wastewater in 2011 was recycled for reuse in fracking , and about 10 percent was disposed of by underground injection (the majority of which took place in Ohio). The remaining less than 1 percent was reported to be in storage pending treatment or disposal, though information was not available on whether it was in open air pits or enclosed tanks. An unknown amount was applied (typically after only partial treatment) to roadways for ice or dust control, where it is often carried into nearby waterways when it rains or snow melts.

The problem of what to do with this byproduct is growing as the volume of wastewater continues to increase rapidly with the expansion of fracking in the Marcellus Shale formation and nationwide. In Pennsylvania alone, total reported wastewater volumes more than doubled from the first half of 2011 to the second half.

The wastewater disposal methods most commonly used in Pennsylvania differ largely from other parts of the country. On average nationally, 90 percent of wastewater is disposed of in injection wells. The Marcellus Shale region, however, poses particular problems because the geology cannot accommodate large volumes of injected wastewater. Therefore, gas companies there have to ship large quantities of it elsewhere.

"Pennsylvania and the entire Marcellus Shale region have geological limitations that make wastewater disposal a particularly vexing problem for the area," said Kate Sinding, senior attorney at NRDC. "But the lessons learned there are applicable nationwide. It is critical states in this region that are already fracking clean up their act fast. And states like New York, where gas companies are still knocking on the door, must not let them in until they get this right."

Stronger Safeguards Needed

The threats posed by these disposal methods underscore the need for stronger state and federal safeguards against pollution from contaminated fracking wastewater. These improvements include (a) closing the loophole in federal law that exempts hazardous oil and gas waste from treatment, storage, and disposal requirements applicable to other hazardous waste, and (b) improving standards for wastewater treatment facilities and the level of treatment required before the processed water is discharged into bodies of water.

In states like New York where fracking is not yet active, this means the activity should not move forward there until these issues, and other environmental and public health concerns, are properly addressed. Where fracking is already taking place, it underscores the need for new environmental and public health standards, as well as enforcement, to overhaul the way industry is disposing of this waste and otherwise operating in our backyards.

Wastewater contains a variety of potentially harmful pollutants that can be toxic to humans and aquatic life, radioactive, or corrosive if they are released into the environment or if people are exposed to them. They can damage ecosystem health by depleting oxygen or causing algae blooms, or interact with disinfectants at drinking water plants to form cancer-causing chemicals. These pollutants include salts, oil, grease, metals, naturally occurring radioactive material, and a cocktail of chemicals used in fracking .

Fracking involves using blasting high volumes of water and sand, mixed with undisclosed chemicals, into the ground to break apart rock and release previously inaccessible pockets of natural gas. Wastewater is created when that water mixture returns to the surface immediately after fracking , and continues to emerge from the well after production begins along with polluted water contained naturally within the underground rock formation.

The full report is online here: http://www.nrdc.org/energy/ fracking -wastewater.asp.

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API wants quicker frack permits

UPI International Intelligence - Thursday, May 10, 2012
Author: UPI News Service

Instead of new federal rules regulating hydraulic fracturing of oil and natural gas deposits, Washington should speed up the permit process, a trade group said.

The Interior Department last week unveiled updated regulations for the hydraulic fracturing of oil and natural gas wells on federal and tribal lands. Operators under the terms of the new proposal are called on to outline the chemicals they use in hydraulic fracturing fluid.

Energy companies employ hydraulic fracturing , known also as fracking , to unlock oil and natural gas deposits in shale formations underground.

Jack Gerard, president and chief executive officer at the American Petroleum Institute, said the shale revolution is providing jobs and energy security to the United States. Instead of regulating the process, he said, Washington should make it easier for energy companies to move forward.

It takes more than half a year on average to get a federal drilling permit for development on federal lands, he said in a statement.

He said delays in the permit process left an estimated 17,000 wells idled in Wyoming.

Address these delays and fix this process and let the states continue to handle the regulation of hydraulic fraction which they've shown they know how to do very well, he said.

The Environmental Protection Agency in December found drilling in shale deposits in Wyoming resulted in groundwater contamination.

LANDOWNERS COALITION DEMANDS DRILLING RIGHTS

Watertown Daily Times (NY) - Thursday, May 10, 2012
Author: Associated Press

A coalition of New York landowners seeking to lease land for natural gas drilling pressed state officials Wednesday to consider the rights of property owners as they make decisions on shale gas development.

The Joint Landowners Coalition of New York was at the Capitol to present a "Declaration of Rights."

"Landowners' rights are being trampled by those with extreme political agendas," said Dan Fitzsimmons of Binghamton, president of the 70,000-member coalition. He referred to groups seeking a ban on high-volume hydraulic fracturing , or fracking , which injects chemically treated water into drilled wells to

release gas from shale.

Opponents of fracking say it poses significant health risks, including the potential to contaminate water supplies. They argue that one landowner's rights don't trump the rights of neighbors who will be subjected to the noise, traffic, environmental risks and other issues when heavy industrial development comes to a rural or residential area.

The industry and environmental groups have stepped up lobbying in Albany as the Legislature considers bills including one to ban fracking . The Department of Environmental Conservation may decide in coming months whether to allow the technology after four years of studying the environmental impacts and developing new guidelines and regulations to ensure it's done safely.

"We have the opportunity to create a vibrant new economy in New York. Unfortunately, we are currently being denied that opportunity by those who base their opposition on information that is not backed by science," said Jennifer Huntington, a Cooperstown dairy farmer.

Huntington is suing the Otsego County town of Middlefield over its municipal ban on fracking . The case is being appealed after a trial-level state Supreme Court judge ruled in favor of the town in February.

Another local ban by the town of Dryden in Tompkins County was challenged by gas-driller Anschutz Exploration Corporation and upheld by a state supreme court judge. That ruling is also being appealed.

State Sen. Thomas W. Libous, a supporter of natural gas development, joined the landowners at a news conference Wednesday afternoon at the Capitol. He said natural gas drilling presents an opportunity for economic growth and new jobs in the Southern Tier. He said it can be done safely under regulations being developed by DEC.

Broome County Executive Debbie Preston said the responsibility of having to maintain and pay taxes on land should come along with the right to sell or lease and profit from the mineral resources beneath it.

NATURAL GAS - Anadarko receives approval to drill 3,500 wells in Utah
Houston Chronicle (TX) - Wednesday, May 9, 2012

1 Pollution case: Anadarko wins dismissal of some claims. D9

The Obama administration on Tuesday approved a plan by Anadarko Petroleum Corp. to sink more than 3,500 natural gas wells in eastern Utah, after the company agreed to environmental safeguards that aim to protect the local air and water.

Interior Secretary Ken Salazar touted the move as a hallmark of responsible energy development, with local stakeholders, tribal governments, conservationists, regulators and industry all coming together on a broad drilling plan.

"The partnership we see here today tells us we can ... develop the energy resources of the nation and at the same time make sure we are taking the conservation measures that are so important," Salazar said during a news conference in Utah's Uinta Basin. "This effort has created a template for what should be happening around our oil and natural gas development."

Under a compromise with the Southern Utah Wilderness Alliance, The Woodlands-based Anadarko agreed to hold off on new drilling in certain wilderness areas near the White River. The company also has pledged to use air emission controls on the wells it plans to drill over the next decade.

The project, which has been in the works since 2006, will involve drilling from 1,500 well pads over 163,000 acres. Anadarko still must get permits to drill individual wells under the plan.

Salazar heralded the planned drilling as a boon for domestic energy production and the economy that could produce an estimated 6 trillion cubic feet of natural gas and put millions of dollars into Utah

communities.

The Interior Department's Bureau of Land Management released a final environmental impact statement supporting the project last month. At the time, the Southern Utah Wilderness Alliance praised Anadarko for being responsive to the group's conservation concerns.

The Obama administration has been eager to tout its support for domestic natural gas development with environmental safeguards. Last month, President Barack Obama established an interagency task force to coordinate regulation of natural gas drilling, potentially streamlining the work of more than a dozen federal agencies.

Conservationists have raised fears about potential drinking water contamination from hydraulic fracturing , now being used to extract much of the nation's natural gas. The technique involves blasting mixtures of water, sand and chemicals deep underground to break up rock and release trapped oil and gas.

The drilling boom also has led to concerns about air quality and smog from emissions at the wells.

Industry officials insist that hydraulic fracturing is safe and note that fracturing typically occurs thousands of feet below drinking water supplies.

The Interior Department last week proposed a rule that would set new well design standards and chemical disclosure requirements for hydraulically fractured wells on public lands.

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Documentary to answer ‘ fracking ’ foes : Filmmaker, journalist speaks at Okla . chapter of the National Association of Royalty Owners convention
Journal Record, The (Oklahoma City, OK) - Friday, May 4, 2012
Author: D. Ray Tuttle

An Irish journalist and documentary filmmaker is on a mission to counter claims made by dedicated environmentalists that hydraulic fracturing is harmful to people.

Ann McElhinney on Friday encouraged her audience, made up of more than 275 members of the Oklahoma chapter of the National Association of Royalty Owners, to battle what she said were false claims by the movie GasLand.

The movie shows flames coming out of water faucets and claims that hydraulic fracturing releases natural gas into underground aquifers.

McElhinney, who has made several documentaries related to the environmental movement, is currently working on the film FrackNation. She said the film takes on misinformation and scare stories promoted by the environmental movement and reported in the mainstream media. It is expected to be released this summer.

“We want to show them that we love energy,” McElhinney said.

The timing of the release will coincide with the GasLand II film, which she said will claim that drilling sparks earthquakes.

“We will bring out FrackNation at the same time,” McElhinney said. “The media wants to give the impression of being balanced and we’ll release our film then to help them do that.”

McElhinney praised oil and natural gas production.

“Energy is life,” McElhinney said. “Look at the picture of the Earth at night and see all the lights that are on. Where you have light, you are safe.”

McElhinney told the audience that they do not control their destiny.

“The EPA is in charge of your destiny,” McElhinney said, referring to the U.S. Environmental Protection Agency. “They are making decisions in Washington, D.C., about Oklahoma, and they are a threat to you.”

McElhinney also played the tape of remarks by Region 6 EPA Administrator Al Armendariz, who used the word crucify to describe how he would go after companies violating environmental laws.

Armendariz was in charge of the energy-rich, five-state region of the United States: Oklahoma, Texas, New Mexico, Arkansas and Louisiana.

McElhinney reviewed the facts about hydraulic fracturing , or fracking . In the process used in most natural gas wells drilled in the U.S., millions of gallons of water, sand and chemicals are pumped underground to break apart rock formations thousands of feet below the surface. The fractured formation allows oil and natural gas to flow easily to the well.

Much of the audience knew that fracking began in 1947.

McElhinney’s perspective changed in the late 1990s while working as a journalist in Romania. McElhinney was there writing about a Canadian gold mining operation. She said that when Greenpeace showed up to protest the operation, it hurt the local population by eliminating jobs at the mine.

“Greenpeace destroyed people’s lives,” McElhinney said. “Greenpeace was the enemy of the poor.”

A year after quakes, U.K. explorer announces plan to resume drilling
Energywire Published: Friday, May 11, 2012

The British shale gas exploration company that suspended drilling in northwest England after triggering minor earthquakes there said it will resume work this year and might begin producing gas as soon as 2014.

"By the first quarter of 2013, we will be far enough along in the exploration program to say this makes sense to go ahead and apply for a full field development permit," Cuadrilla Resources Ltd. CEO Mark Miller said. "Production could be under way as early as 2014."

Cuadrilla, which said it has found more natural gas in British shale formations than Iraq has in all its reserves, said it plans to conduct hydraulic fracturing at three wells by the end of the year, although it will not resume operations at Preese Hall, the well where the two quakes occurred last year. The company is still awaiting approval from the United Kingdom's energy department, which required an assessment of fracturing, also known as fracking, after the earthquakes.

The agency recommended last month that fracturing should be allowed to resume in the United Kingdom as long as companies adopt "robust" safety measures. Such steps include setting a magnitude-0.5 seismic threshold for halting drilling, injecting small amounts of water before fracturing and constant monitoring for tremors.

Fracturing, the process of injecting chemical-laced fluids into shale rock fissures, has been criticized by environmentalists who say it could pollute groundwater. France and Bulgaria have banned the gas extraction process.

"It's very important that nobody gets it wrong in Europe," Miller said. "We have to do this job right and demonstrate that it's safe, environmentally sound and commercially viable" (Kari Lundgren, Bloomberg, May 10). -- PK

Potential new oil recovery method field tested
Penn Energy 05/08/2012

http://www.pennenergy.com/index/petroleum/display/2190207927/articles/pennenergy/petroleum/exploration/2012/may/potential-new_oil.html?cmpid=EnlDailyPetroMay92012&cmpid=EnlWeeklyPetroMay112012

DOE Defends Work With Companies On Research to Unlock Oil , Gas Resources

BNA Snapshot BNA Daily Environment Report

Unconventional Energy Resources
Key Element: DOE is partnering with companies on energy research and refocusing shale gas research on environmental and safety issues.

Potential Impact: Research eventually could unlock oil from shale and gas from shale and methane hydrates.By Alan Kovski

The best way for the Energy Department to help open up new energy sources is through close working relationships with industry, focusing on the areas where industry and government together see the most promise, a DOE official told Congress May 10.

Charles D. McConnell, assistant secretary for fossil energy, disputed the charges of Republican congressmen who said the Obama administration appeared to pay lip service to an “all of the above” energy strategy while cutting DOE research on fossil fuels.

DOE is trying to work with oil and gas companies on emerging technologies as the department did in the early 1970s, when it worked with Mitchell Energy & Development Corp. to apply hydraulic fracturing to natural gas deposits, McConnell testified to the House Science, Space, and Technology Subcommittee on Energy and Environment.
That is the kind of partnering, focused on early emerging technologies, that can be most beneficial to energy development, McConnell said. He said that approach now is being taken by DOE as it partners with companies to research methane hydrates, the vast deposits of ice crystals trapping natural gas in arctic permafrost and seafloor areas in much of the world, including Alaska and the U.S. Outer Continental Shelf.

Focus on Environmental, Health, Safety Issues
Republicans expressed skepticism. The administration's budget request for fiscal year 2013 would eliminate almost all oil and gas research and development, said Rep. Andy Harris (R-Md.), chairman of the subcommittee.

The administration's first three budget proposals tried to zero out the methane hydrates program, Harris said.

McConnell said his department's work on shale gas has been refocused to address environmental, safety, and health issues. Improvements in those areas will help make shale gas a “sustainable” energy source, he said.

Oil and gas companies understand that the industry will face objections and barriers to shale gas development if the environmental, safety, and health issues are not resolved, and they have sent a number of supportive signals to DOE on the subject, McConnell said.

Methane Hydrate Potential Cited
The Energy Department, ConocoPhillips Co., and the Japanese government partnered on a research effort on the North Slope of Alaska that on April 10 completed a successful field trial of methane hydrate production. The technology, developed by ConocoPhillips and the University of Bergen, Norway, involved injecting a mixture of carbon dioxide and nitrogen into a methane hydrate formation and depressurizing the formation to allow methane to flow out.

“We have done the work in Alaska,” McConnell told the subcommittee. “It was very successful. We were highly encouraged by the results we saw.”

McConnell said DOE hoped for continued work with industry on methane hydrates, but that the research is “just getting started.”

Vast deposits of the resource have been described by government and academic researchers, and some scientists and environmental activists have expressed worries about the methane escaping into the atmosphere (45 DEN A-9, 3/10/10).

“A good measure of industry interest is their willingness to cost-share and partner,” McConnell said, citing the example of the work with ConocoPhillips. “That's the way that kind of research can be conducted and be most beneficial.”

Oil Shale Water Worries
Another potential resource still at the research stage is the oil shale in what is called the Green River Formation in Colorado, Utah, and Wyoming. McConnell said that shale cannot be economically recovered yet, although different technologies are being studied.

The Green River shale deposits trap oil in the form of kerogen, which is oil in a solid form. Government and industry have said development might require a way to heat the rock underground until the rocks release their kerogen as oil that can be pumped to the surface. The process also might require large volumes of water in a region of the country that is very dry.

The Government Accountability Office has reviewed the subject of oil shale, and it released an updated report on the subject for the May 10 hearing.

Rep. Paul D. Tonko (D-N.Y.) asked Anu K. Mittal, GAO director of natural resources and environment, about the report, Unconventional Oil and Gas Production: Opportunities and Challenges of Oil Shale Development.

Mittal said GAO found that two areas especially needed more study. There is insufficient data on groundwater and surface water baseline conditions, and there is a need for more information on how groundwater and surface water interact with each other, she said.

Baseline information would be important to allow estimates of the impacts of oil shale development, Mittal said. Without that information, there would be no basis for comparison once development starts having an impact, she explained.

For More Information
Prepared testimony and an archived webcast of the May 10 hearing on unconventional oil and gas resource development held by a House Science, Space, and Technology subcommittee are available at http://science.house.gov/hearing/subcommittee-energy-and-environment-hearing-challenges-and-opportunities-unconventional.

The GAO report, Unconventional Oil and Gas Production: Opportunities and Challenges of Oil Shale Development, is available at http://www.gao.gov/assets/600/590761.pdf.

Colorado: Sand Wash Niobrara program to start

Oil & Gas Journal 05/10/2012
http://www.ogj.com/articles/2012/05/colorado-sand-wash-niobrara-program-to-start.html?cmpid=EnlEDMay102012
Quicksilver Resources Inc., Fort Worth, said it expects to begin an exploratory drilling program of as many as seven vertical and horizontal wells later this month in the Sand Wash basin of northwestern Colorado.

Copano to take South Texas gas plant to 1 bcfd

Oil & Gas Journal 05/10/2012
http://www.ogj.com/articles/2012/05/copano-to-take-south-texas-gas-plant-to-1-bcfd.html?cmpid=EnlDailyMay102012

Copano Energy LLC, Houston, will add 400 MMcfd of cryogenic processing capacity at its Houston Central complex, in Colorado County, Tex., west of Houston, the company reported.

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